ol. 34 Toronto, July 1, 1914 No. 13

Canada Lumberman & Wood Worker

Time is Money

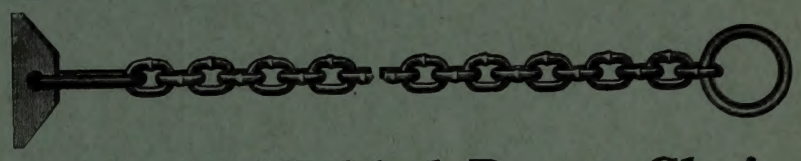
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



Electric-Welded Boom Chain

25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Skefko "S. K. F." Ball Bearing

Automatically Self-Aligning

"Ball Bearings in Woodworking Plants," on page 48 of the June 1st Canada Lumberman, gives in a very clear manner some of the advantages of Ball Bearings for power shafting.

In the case of shafting which is not properly lined up or quickly gets out of alignment, the ordinary ball bearing is little if any better than a plain bearing.

The Skefko "S.K.F." Double Ball Bearing is automatically Self Aligning and will operate as efficiently under the worst conditions as if the shafting was in proper conditions.

Put yonr plant on the most efficient basis.
Install Sketko "S. K. F." Bearings.

The perfect operation of Skefko S.K.F. Ball Bearings under conditions which would put every other bearing out of business is due to the spherically ground outer raceway of the bearing. Note how the bearing acts like a ball and socket joint.

The Canadian Fairbanks-Morse Co.
Limited

Montreal, St. John, Quebec, Ottawa, Toronto, Hamilton, Ft. William, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Victoria.

UNLINED LINEN FIRE HOSE (Circular Woven and Seamless)
"Underwriters Best" Red and Blue Stripe

MADE to conform to the requirements of the Associated Factory Fire Insurance Companies and is approved and accepted under every high-grade flax-hose specification.

GUARANTEED WATER-PRESSURE 500 LBS. PER SQUARE INCH

Stocks carried by The A. R. Williams Machinery Co., Limited,
TORONTO WINNIPEG VANCOUVER

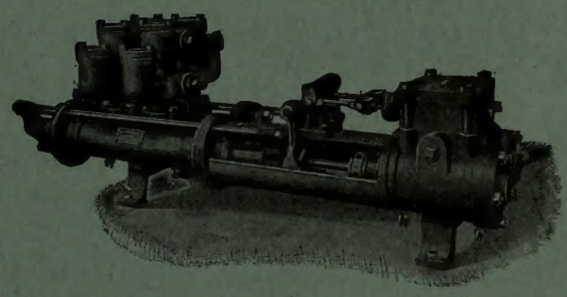
F. REDDAWAY & COMPANY 595 St. Paul St. MONTREAL

Sole Makers of

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

Our Aim is PERFECTION

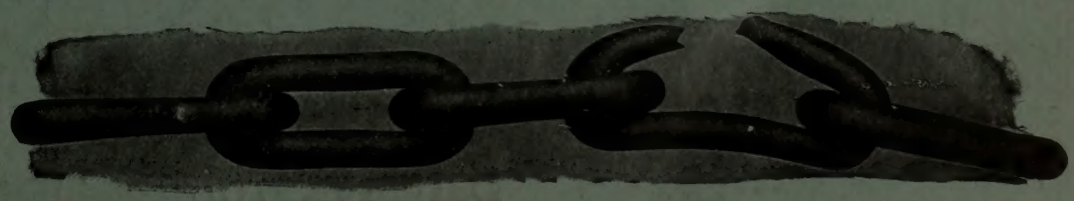
Give us a trial when next in the market



The Smart-Turner Machine Co.,
Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers page 62

Lumber - Lath Shingles

¶ Our two large mills are now in operation sawing the finest of Spruce and Pine Lumber, Spruce Lath and Cedar Shingles.

¶ A large assortment of dry lumber always in hand on our yards, to fill orders wanted for quick shipment.

¶ Our new and up-to-date electrically driven planing and resawing mill is now running and turning out first class work. We can fill orders for either rough or dressed lumber. Cost of dressing is saved in freight.

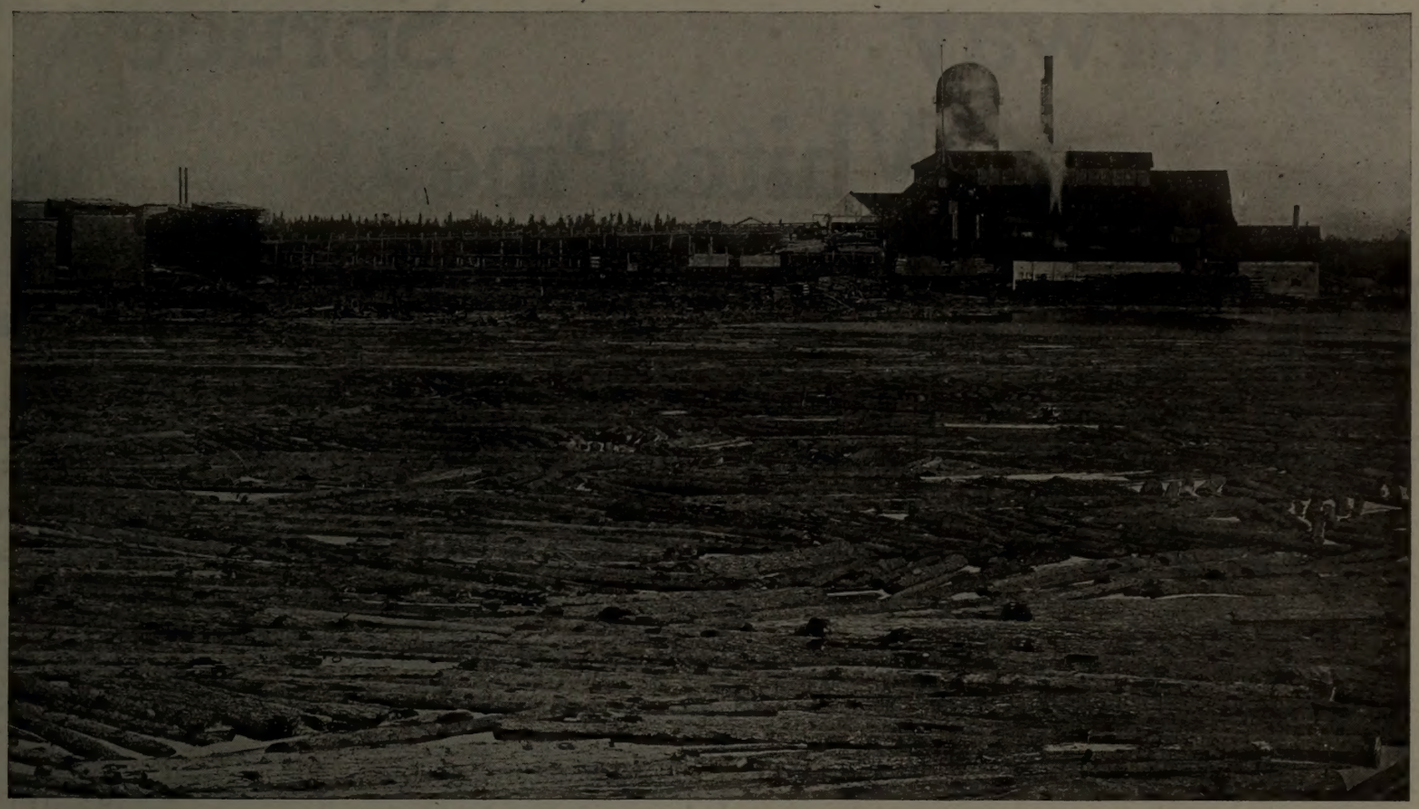
¶ We manufacture the "Beaver Brand" White Cedar Shingles, full count; every bundle is marked "250 shingles" and bound with iron bands; no more strings and broken bunches.

¶ Mills and yards located at Bathurst, N.B., on the beautiful Bathurst Harbor. Shipments can be made by schooner and steamer right from the Company docks to any port in the world, and also by rail to any part of Canada or the United States. Intercolonial Railway tracks and sidings in our yards, with trackage room for 50 cars on our own premises.

¶ Wire, write or 'phone your orders, and ask for our monthly stock list of lumber for sale and list showing cost of dressing.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada



VIEW OF OUR MILL AND BOOMS

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Manufacturers of

Lumber, Lath and Dimension Timber

Planing Mill

Dry Kiln

Norway Spruce White Pine

James G. Cane & Co.

Prices right
411 McKinnon Building
TORONTO, ONT.

Yellow Pine Timber

And Lumber Rough or Dressed
Car Material and Long Timbers
a Specialty

PROMPT SHIPMENTS

E. C. BRADLEY LUMBER CO.

Lisman, Ala. and Cincinnati, Ohio

T. H. Garrett Lumber Co.

Manufacturers of . . . . . **YELLOW PINE LUMBER**

Mills:—
Selma, La.
Jena, La.
Melton, La.
Waukegan, Tex.
Buena Vista, Ark.

Long Leaf Timbers,
Short Leaf Finish
and
Railroad Material

Send your inquiries and orders to:—

General Sales Office
Suite, 1220 Chemical Building, ST. LOUIS, Mo.

New Ontario Colonization Co.

LIMITED

Lands, Lumber, Lath and Pulpwood
Planing Mill Work

Lumber and Pulpwood Mills, Jacksonboro, Ont.

We have the following on hand ready for shipment:

1 x 4 Merchantable Spruce.	1 x 12 Merchantable Spruce.
1 x 5 Merchantable Spruce.	4/4 and 8/4 Mill Run Tamarack.
1 x 6 Merchantable Spruce.	4/4 Balsam.
1 x 7 Merchantable Spruce.	4/4 No. 2 and Better Whitewood.
1 x 9 Merchantable Spruce.	8/4 No. 2 and Better Whitewood.
1 x 10 Merchantable Spruce.	4/4 Mill Run Poplar.

CLAY BELT LANDS FOR SALE, Located in
Townships of Kendrey and Haggart, District of Temiskaming, Ontario

Mills:
JACKSONBORO, ONT.

Sales Office:
New York Telephone Bldg.
BUFFALO, N.Y.

Spruce
White Pine
Banksian Pine
Birch

Get our stock list and prices.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, **Portland, Maine**

Dry Stock at Tomiko Must be Shipped at Once

Write for Prices

100 M′ 1 x 4 & 5—10/16 Mill Run White Pine
100 M′ 1 x 6—10/16 " " " "
50 M′ 1 x 7, 9, 10—10/16 " " "
88 M′ 1 x 10 No. 1 Culls
130 M′ 1 x 12 No. 1 Culls
100 M. 1 x 4 & up "

The Long Lumber Co.

Hamilton, Ont.

"SAY HOCKEN!

That was a pretty good shipment of lumber you sent me last month. I want some more of it right away."

That is what they all say of

Hocken's Hemlock

Hocken Lumber Co., Limited

Otter Lake Station, Ontario

TRADE T MARK (REGISTERED)

DRY WHITE PINE

MILL RUN (Boxout)

5/4 x 7 up	12/16	5/4 x 4/7 12/16
6/4 x 7 up	12/16	6/4 x 4/7 12/16
8/4 x 7 up	12/16	5/4 x 4 up 6/11
12/4 x 7 up	12/16	6/4 x 4 up 6/11

Send us your enquiries.

Watson & Todd, Ltd., Ottawa, Ont.

Wholesale Lumber — Car and Cargo Shipments

JOHN M. DIVER

DETROIT, MICH.

"Everything in Lumber"

High Grade Thoroughly Dry White Oak

4,000 ft. 10/4, No. 1 Com. and better. 22,000 ft. 12/4, No. 1 Com. and better
4000 ft. 16/4, No. 1 Com. and better.

Nice Soft Dry Poplar—Good widths and lengths

70,000 ft. 4/4, No. 2 Common — 24,000 ft. 4/4, Selects and Saps
36,000 ft. 4/4, No. 1 Common — 48,000 ft. 4/4, F. and S.

I offer the above at attractive prices.

Special Bills Cut to Order. Write for prices

Timber for R. R. Construction and Commercial Purposes, a Specialty.

OFFICE:—413 Hammond Bldg. Phone Cadillac 2275

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

JOHN GILLIES, President — DAVID GILLIES, Vice-President. — J. S. GILLIES, Sec.-Treas.

Established 1873

GILLIES BROS.

Limited

Mills and Head Office BRAESIDE, ONT.

Manufacturers of

WHITE PINE

RED PINE — SPRUCE

New York City: Guy E. Robinson, 1123 Broadway

White Pine, Red Pine
Spruce

Lumber

Cedar Shingles
Lath

BARTRAM BROTHERS

Limited

Ed. T. Saxe, 200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

OUR SAW MILLS ARE NOW RUNNING

BROMLEY

The Best There is
in
Red and White
PINE

Wm. H. Bromley
Pembroke, Ont.

BROMLEY

Quincy Adams Lumber Co., Limited

MANUFACTURERS OF

White Pine, Birch, Spruce and Hemlock

Special Price for Quick Shipment:

4/4 No. 1 Common Birch, Dry.
8/4 - 10/4 - 12/14 No. 1 Com. and Bet. Birch.
1 x 5 Merchantable Spruce, Dry.
2 x 5 Merchantable Spruce, Dry.
6 x 6 to 12 x 12 Merchantable Spruce, Dry.

Toronto, Canada
801-2 C.P.R. Building,
Cor. King & Yonge

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

OFFER

DRY—3 x 7 and up SHAKY WHITE PINE, quality equal to First Deal Inspection.

DRY—1″ and 5/4″ FINE DRESSING to CLEAR SPRUCE.

I WANT YOUR ORDERS

and solicit your inquiries for

PINE, SPRUCE, HEMLOCK, HARDWOODS, LATH

Deal with me and you will be satisfied every time.

C. A. SPENCER

Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles

Eastern Townships Bank Building, MONTREAL, Quebec

THE
FESSERTON TIMBER CO.
LIMITED

Manufacturers of

Pine, Hemlock, Spruce & Hardwoods

WE CAN

Dress, Match, Size and Resaw at Fesserton

Hemlock and Pine Timbers a Specialty

15 Toronto Street, TORONTO

Casey-Shaw Lumber Co.
Limited

SUDBURY, ONT.

Manufacturers of

Lumber and Lath,
Planing Mill Work

General Office, Sudbury, Ont.

Our Mills Produce and We Market as Much

GENUINE LOUISIANA RED CYPRESS

As All Other Concerns Combined

250,000,000 feet constantly in stock insures filling any reasonable order promptly.
Our Canadian trade is constantly increasing and we are always striving to merit a still larger increase.

Our salaried salesmen receive credit for mail orders. Try us.

LOUISIANA RED CYPRESS COMPANY

Hibernia Building **New Orleans, La.**

MARITIME PROVINCES

Fraser Limited

Fredericton, N. B.

SELLING AGENTS FOR

Donald Fraser & Sons, Limited
Cabano, P. Q.

Fraser Lumber Co., Limited
Plaster Rock, N. B.

F & M Lumber Co., Limited
Whitworth, P. Q.

MANUFACTURERS OF

Spruce Lumber
Rough and Finished

Shingles, Lath, Piano Sounding Board Stock, etc.

J. B. SNOWBALL CO., LTD.

Chatham, New Brunswick, Canada

View of yard and mill—J. B. Snowball Co., Ltd., Chatham, N.B.

—Manufacturers of—

Spruce, Pine, Hemlock, Hardwood, Lumber, Cedar Shingles and Laths

Mills—Chatham, Tracadie, Millerton. We solicit your enquiries.

We invite correspondence re

"Dalhousie" Brand

N. B. Cedar Shingles *of all grades*

Special Prices for shipment to

All Ontario Points

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick

Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto

If You Need a Position

a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.
The rates are most reasonable, write us.

Canada Lumberman and Woodworker, Toronto

Edward Partington

Pulp and Paper Co., Limited

Head Office, St. John, N.B.

Mills: St. John, N.B. Blackville, N.B. Marysville, N.B.

Manufacturers of

Bleached Sulphite Pulp

Spruce, Pine and Hemlock Lumber, Laths

Hardwoods

JOHN McKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W.

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SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

JOHN P. NEWMAN

Saw Mill and Novelty Works. All kinds of Hard and Softwood Lumber. Dimension Stock in Beech, Maple and Birch. Mattress and Cot Frames, Etc. *Send me your requirements, I can furnish you stock that will please.*

PHONE 37 — RESIDENCE 15

WIARTON, Ont.

HAEBERLE LUMBER CO.

LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.

Yellow Pine Timber a Specialty.

Interior Trim Mill Work.

NIAGARA FALLS, N.Y.

STAONAL MARK

Hexagonal Lumber Crayon No.9.

STAONAL LUMBER CRAYONS

Waterproof Permanent

Will not wash or rub off.

SUPERIOR MFG. CO., LIMITED

39 Church Street, Toronto

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

W. T. EAGEN

Selling Agent for Ontario and Quebec

2 Toronto Street,

Phone M. 2814 — TORONTO

Watchman's Portable CLOCKS

We are the only MANUFACTURERS in America

WRITE US FOR DETAILS

Hardinge Bros., Inc.

1775 Berteau Ave., CHICAGO

Lumber

Good Grades — **Right Prices** — **Prompt Shipments**

WE HAVE A FULL LINE IN ALL

Canadian Hardwoods

All thickness, 4/4 to 16/4.

ALSO A FULL LINE OF

Jack Pine—1″ and 2″

SPECIAL FOR QUICK SHIPMENT:

3 cars	6/4,	No. 1	Com. & Betr.	Hard Maple	(winter sawn)
3 "	8/4,	No. 1	" "	"	"
3 "	12/4,	No. 1	" "	"	"
2 "	16/4,	No. 1	" "	"	"
5 "	4/4,	No. 1	" "	Birch	
2 "	4/4,	No. 2	" "	"	
2 "	6/4,	No. 2	" "	"	
5 "	8/4,	No. 1	" "	"	
2 "	12/4,	No. 1	" "	"	
3 "	16/4,	No. 1	" "	"	
10 "	4/4,	Hardwood Crating Culls			
2 "		Hardwood Heart Squares			
4 "	4/4,	No. 2	Com. & Betr.	Basswood	
4 "	4/4,	No. 2	" "	Elm	
1 "	8/4,	No. 1	" "	"	
2 "	4/4,	No. 2	" "	Black Ash	

Let us quote you on any of the above. Prices will be low if for prompt shipment.

National Hardwood Grading Rules.

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

206 Manning Chambers

Toronto

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood, Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON

QUEBEC

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring, Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.

LIMITED

Toronto

Sarnia

Buffalo

The Rimouski Industrial Co., Ltd.

(La Cie Industrielle de Rimouski, Ltee.)

Dressing of wood in transit on the Intercolonial Railway.

SPECIALTIES

Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie

Pine and Hardwood

Lumber

Lath and Shingles

North Tonawanda, N. Y.

Individuality and Experience Count

The experienced individual gives close attention, knowledge and aggressive interest. He will render you better and cheaper service than the hastily built force of a corporation. Each of my men has learned in the hard school of long actual experience. Try me.

Timber Estimates
Boundary Surveys
Topographical Maps
Planting

James W. Sewall
16 Centre Street
OLD TOWN, MAINE

Austin & Nicholson
Chapleau, Ontario

Rough and Dressed Lumber and Lath

Dressing and Matching in Car Lots a Specialty

HOBART & CO.
CHOICE
Southern Hardwoods
Cypress, Kiln Dried North Carolina Pine
Send Us Your Inquiries
53 State St., BOSTON, MASS.
Yard at Prison Point
Cable Address "Hobco, Boston."

MUNSON-WHITAKER FORESTERS NEW

"Well Bought is Half Sold"

We Offer the Following Special Lines—
For Quick Sale

2 Cars	4 x 4	to 6 x 6 Sound Cedar Squares
100,000 Ft.	5/4	1st and 2nd Basswood
2,500 "	8/4	" " "
2,500 "	16/4	" " "
12,000 "	8/4	1st and 2nd Soft Elm
17,000 "	4/4	No. 1 C. & B. Soft Elm
22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8	to 16"—10 to 16 ft. 1st and 2nd White
13,000 "		

H

We are Buyers of
Hardwood Lumber
Pine and Spruce
Veneers (3 or more ply) Handles (all descriptions)
Staves Hoo Headings
JAMES WEBSTER & [illegible]
Bootle, Liverpool
London Office
Dashwood House 9 B

CAMERON & CO., LIMITED

OTTAWA WHOLESALE CANADA

OAK FIR WHITE PINE

Specialty --- Dimension Timber

HEMLOCK YELLOW PINE NORWAY PINE

...mber
...th
...ingles

EASTERN AGENTS
NORTH PACIFIC LUMBER CO., Limited
MILLS AT - - BARNET, B.C.

TIES
POLES
POSTS

...D 1855
...LUMBER CO.
...SHENE
...ealers in

LOGGING - DRIVING SAWING

...Which is the most expensive operation?

...hich is there the greatest need for improvement?

...t improve it?

...aw Motor-Headworks is the improvement in Log Driving machinery.

...one man.

...000 feet.

...able.

...RS

TORONTO

Highest Grade

Extra Clear XXX

B. C. Red Cedar Shingles

in Transit

If you want quick delivery write, wire or telephone

C. A. Larkin Lumber Co'y., Limited

TORONTO, ONTARIO

JOHN DONOGH & CO.

Wholesale Dealers

HEMLOCK

SPRUCE

Dry stock in all sizes. *Quick shipments.*

1205 TRADERS BANK BUILDING, TORONTO

MEMPHIS VENEER & LUMBER CO.

Manufacturers: Honduras Mahogany and Southern Hardwood Lumber

SAWN VENEERS

Mahogany, Quartered and Plain Oak and Quartered Red Gum

MEMPHIS - - - TENN.

JAMES E. STARK LUMBER CO.

Manufacturers: Quartered and Plain Oak

ASH

Poplar and Cypress A large stock of Ash continually on hand

MEMPHIS - - - TENN.

FRANK H. HARRIS LUMBER CO., LTD.

Sales Agents, 32 CHURCH STREET, TORONTO, ONT.

WHOLESALERS: Hardwoods, Oak Flooring, Chestnut, Walnut. Yellow Pine and B. C. Shingles Always in Transit.

Mixed Cars

Promptly Shipped

SEND US A LIST OF YOUR REQUIREMENTS AND WE WILL QUOTE AN ATTRACTIVE PRICE.

Oliver Lumber Co.

of Toronto Limited

Confederation Life Building

We Specialize in

PILING

Always on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet.

Wanted 1 in. and 2 in. Hemlock and Spruce. 1 in. Cull Hardwood.

WANTED—Contractors to take out piles during the summer months

ARTHUR N. DUDLEY

Lumber, Lath and Shingles

109 Stair Building Toronto Phone M 6368

FOR SALE

Bone Dry Stock

129,000 ft. 1 x 4, 5, 7" Mill Run Red Pine, 44% 4", 41% 5", 15% 7".
120,000 ft. 1 x 6 Mill Run Red Pine.
42,000 ft. 1 x 4, 6/11 ft. Com. and Drsg. White Pine.

Write us before ordering

The Elgie & Jarvis Lumber Co., Ltd.

18 Toronto Street, TORONTO, ONT.

Our Mills now ready to cut

HEMLOCK TIMBER

up to 12 x 12 — 24

We have on hand a full line of

Hemlock Lumber, Ties & Post

Cut This Season

Prompt Delivery guaranteed. Write, wire or phone for quotations.

SPEARS & LAUDER Manufacturers & Wholesale Dealers 501 Kent Bldg., TORONTO

QUEBEC

J. Burstall & Company

Timber and Lumber Merchants

Shippers of All Kinds of Lumber and Timber

Head Office, Quebec, Que.

Branch:
Montreal—Board of Trade Bldg.

J. Burstall & Company, Ltd.
57 Gracechurch St. E. C., London, England

A Typical Logging Scene in Fassett, Que.

When You Want Lumber From Such Logs

as these, we have the stock ready for you. Quality and service is the keynote of our success and by devoting our energy to the selling of Soft and Hardwoods we are able to give you attention that insures the acme of satisfaction. We are open to contract for our

Hardwoods and Soft Woods

and can handle any contract for Special Bills.

Our new mill commenced operating in January, and is now running double tower.

Fassett Lumber Company, Limited

Fassett, Que.

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE SOLICITED

Mills at:

St. Pacome, Que., Canada

On I. C. Ry. 75 Miles East of Quebec City

MONTREAL

The Saw-Mill Owners Sales Co.
Representing 22 Mills - 6 Branches
What about a mixed car of mouldings, turnings, doors with shingles and sidings.
Send for our latest catalogue.
It will pay you better than making them yourself.
Lumber of all kinds.
Your correspondence solicited.
Head Office: Coristine Bldg., MONTREAL

Everything in Lumber
Wholesale and Retail
Write or wire us for your requirements
The McLennan Lumber Co.
Limited
Montreal, Canada

Mason, Gordon & Co. 80 St. Francois Xavier Street, **Montreal, Que.**
Everything in Timber
Car and Cargo lots only
Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak
Write, Wire or 'Phone for Prices - Western Office:—Pacific Building, VANCOUVER, B. C.

Charlemagne & Lac Ouareau Lumber Co.
Mills: Charlemagne, Montcalm, St. Adele
The Gres Falls Company
Mills: Three Rivers and Cap Madelaine
St. Gabriel Lumber Co., Limited
Mill: St. Gabriel de Brandon
Head Office: 524 Board of Trade, Montreal, P.Q.
Manufacturers of
Spruce and Pine Lumber and Ground Wood Pulp

The EAGLE LUMBER CO. Limited
WHOLESALE LUMBER
SANS-DIEU-RIEN
MONTREAL - Canada
Large stock of 1″ 1¼″, 1½″ and 2″ WHITE PINE, Bone dry.
10/13-ft. Spruce and Hemlock
Offices at 97 St. James St., Montreal
Mills at Mont Laurier, P. Q.

When You Want Help in Your Mill
Insert an advertisement in the "WANTED & FOR SALE" department
The most efficient mill employees in Canada are regular readers of this paper. Get the best by advertising. Rates on request.
Canada Lumberman and Woodworker - - Toronto, Ont.
Montreal Office: 119 Board of Trade Building

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Birks Building, VANCOUVER, B. C.

Pine — **Larch**

THE HALL MARK OF QUALITY

Selects, Shops, Commons and Mouldings

Timbers, Yard Stock, Clears and Mouldings

The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.

Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is positively right, and prices will please

Timberland Lumber Co., Limited

Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.

Mills at Craigs on the B.C.E.R.

Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

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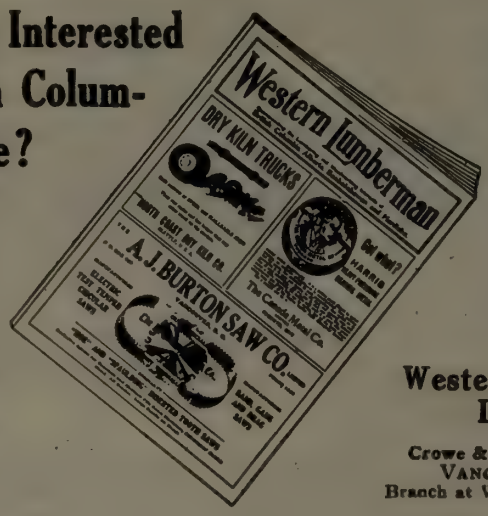

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W. A. ANSTIE, Managing Director.

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Head Office: Revelstoke, B.C.

Mills at Taft, Three Valley, Comaplix, Cascade, Nelson

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We can Dress, Match and Resaw. Order this way and save money.

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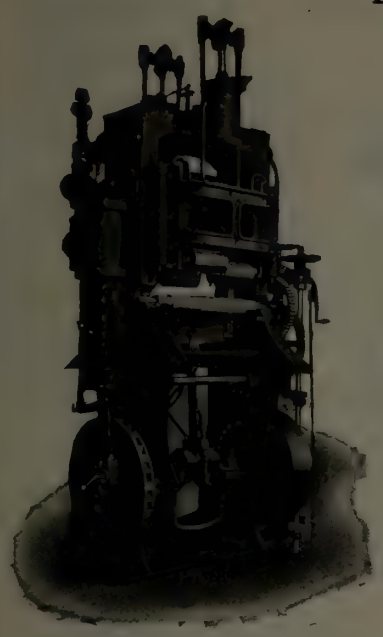
"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



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Head Office, Saginaw, Michigan, U. S. A.

For Immediate Shipment

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Best Quality and Bone Dry

Sawn in 1911 and 1912 and shipped according to the rules of the National Hardwood Lumber Association.

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SOUND TIMBER BONDS ARE LIKE WHEAT IN THE BIN

And this section of the world the most attractive market.

We negotiate long time loans of from $50,000 upwards on standing timber.

Reports and estimates on timber, River Improvements, Surveys and estimates of costs for logging railroads in any part of the world.

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4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding.
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EXTRA XXX RED CEDAR SHINGLES.

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United States Manufacturers and Wholesalers seeking Canadian Business

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected
WE WOULD LIKE TO HEAR FROM YOU

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1/30″ SLICE CUT VENEER
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2″ BAND SAWED LUMBER

Specialty:
QUARTERED WHITE OAK

Service First

He profits most who serves best.

Our Winter's Cut of Hardwoods Now Ready For Shipment

LOOK THESE OVER!

38 M. 1 x 6 and wider, 1st and 2nd End Dried White Basswood.
22 M. 1 x 6 to 8 in., 10 and 12 ft. 1st and 2nd Basswood.
40 M. 1 x 7 and 8 in. 1st and 2nd Basswood.
40 M. 1 x 7 in. and wider No. 1 Common Basswood.
24 M. 1 x 8 in. and wider No. 1 Common Basswood.
35 M. 1 x 6 in. and wider, No. 1 Common Beech.
40 M. 5/4 No. 1 Common and Better Beech.
60 M. 5/8 No. 2 Common and Better Beech.
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38 M. 6/4 1st and 2nd Soft Gray Elm.
25 M. 12/4 1st and 2nd Soft Gray Elm.
18 M. 16/4 1st and 2nd Soft Gray Elm.
45 M. 4/4 6 in. and wider 1st and 2nd End Dried White Maple.
16 M. 5/4 6 in. and wider, 1st and 2nd End Dried White Maple.
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A complete assortment of all grades and thicknesses.

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4/4 Panel and No. 1, 20 to 21, 2 cars.
4/4 Panel and No. 1, 24 to 27, 1 car.
4/4 firsts and seconds, 7 to 17 in., 5 cars.
10/4 firsts and seconds, 7 to 17 in., 1 car.
16/4 firsts and seconds, 7 to 17 in., 2 cars.
5/8 No. 1 common, 1 car.
4/4 No. 1 common, 2 cars.
5/4 No. 1 common, 2 cars.

BASSWOOD
Firsts and seconds, 7 and up wide, 3 cars.
4/4 No. 1 common, 10 and 12 ft., 3 cars.
4/4 No. 1 common, 14 and 16 ft., 2 cars.
5/4 No. 1 common, 14 and 16 ft., 2 cars.

CHESTNUT
4/4 1s and 2s, 1 face, 2 cars.
5/4 1s and 2s, 2 cars.
6/4 1s and 2s, 2 cars.
8/4 1s and 2s, 1 car.
7/4 No. 1 common, 3 cars.
8/4 No. 1 common, 4 cars.
4/4 quartered, 1s and 2s, 2 cars.
4/4 No. 1 common, 2 cars.
4/4 No. 2 common, 3 cars.

WHITE OAK
5/4 1s and 2s, 2 cars
6/4 1s and 2s, 3 cars.
7/4 1s and 2s, 2 cars.
8/4 1s and 2s, 4 cars.
4/4 No. 1 common, 4 cars.
5/4 No. 1 common, 2 cars.
6/4 No. 1 common, 3 cars.

RED OAK
4/4 1s and 2s, 2 cars.
5/4 1s and 2s, 1 car.
6/4 1s and 2s, 1 car.
4/4 No. 1 common, 4 cars.
5/4 No. 1 common, 1 car.
6/4 No. 1 common, 1 car.
4/3 clear face plain strips, 3½ to 5½ wide, 2 cars.

The above is a list of dry stock which we can ship promptly. All our own manufacture, hand sawed and thoroughly seasoned. Do not place your order before writing for prices.

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There is an increasing demand in Canada for hardwoods and Veneers. The specialized woodworking industries of this country are away the best managed and most progressive industries. They have a world wide market for their goods.
Reach the lumber and veneer buyers of Canada's woodworking plants through this paper, the recognized authority in the field.

Canada Lumberman and Woodworker, Toronto, Ontario

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, **Cincinnati, Ohio.** *Write for prices.*

Sell Hardwoods in Canada

Reach the furniture factories, piano factories, sash and door factories through Canada's National lumber medium.

Published semi-monthly. Write to-day for rates.

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Wholesale Distributing Yards and Sales Offices

JAMESTOWN, N.Y.

Mills at—

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Full assortment of grades and thicknesses in Quartered and Plain Oak, Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS. ***IMMEDIATE SHIPMENTS.***

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Mill, Factory and Camp Business

J. J. TURNER & SONS
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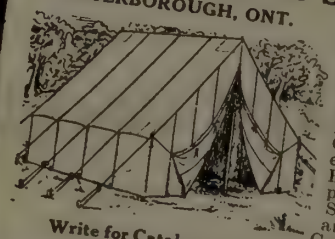

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Write for Catalogue. Prompt shipments.

A good Steel Range for Camp Use

Can be fitted to burn wood, coal or coke. Special price to lumbermen.

ALGONQUIN STEEL RANGE.

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The Lumber field in Canada is large, but it can be economically covered through the

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Canuck Rolled Oats
Package or Bulk

OATS, HAY and FEED

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Note our NET PRICES per foot on NEW RUBBER BELTING

4 ply.	5 ply.
8" at 31c	8" at 36c
10" " 40c	10" " 47c
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Send for our Net Price List on Belting of every description,

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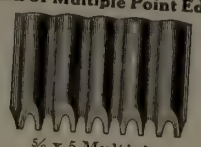

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⅝ x 5 Multiple
Any depth and any number of corrugations

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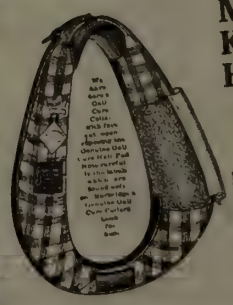

Maple Leaf Kanthurt Horse Collars
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These collars will not hurt your horses' shoulders.
No. 62 Lumber, Hogskin face, $37.00 doz.
Saddlery & Moccasins

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In Bulk or Sacks

The Best Oats on the market. Let us fill your next order and prove what we say.

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Offices also at Fort William and Montreal

Largest Wholesale Dealers in Hay and Oats in Canada

Write or wire us at any of the above offices. We do the rest.
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Everything in Harness

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"The Alligator Brand"
Special strong harness for lumber horses.

Lamontagne Limited.
Balmoral Block, MONTREAL

An Accurate and Speedy Rim Strip Equalizer

This machine is built to accomodate material 10 feet long and shorter, but it can be built for any length required. A 12″ saw to cut off stock up to 4″ thick is regularly supplied and the table of the machine is fitted with friction rollers and a set of six hinged gauges, attached to a graduated steel scale and which can be thrown in or out of position instantly. If you are interested in this or any wood working machine, please write for descriptive circular and price to

The Defiance Machine Works, Defiance, Ohio

No. 11 Hand Feed Rim Strip Equalizing Machine.

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MAPLE LEAF SAWS, **"THE PROVEN BEST,"** absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

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Branch: VANCOUVER, B.C.

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made.

Two Experienced Lumbermen

The Oxford Vulcan is a strong, broad-topped Stove particularly designed for lumber and mining camps, railroad construction camps.

You can see from this picture what a large, unobstructed top surface it has—four by two feet.

The oven dimensions are 25″ x 28″ x 16″. We also make it in a larger size 30″ x 28″ x 16″ larger than any other camp oven made.

The top is made in three sections for easy transportation with extra heavy ten-inch covers.

The reservoir capacity is exceptionally large and supplies plenty of hot water for every camp purpose.

The wood box is 28″ deep and 11″ wide, and the Simplex grates are the same construction as on our largest hotel ranges.

The Vulcan is designed for heavy outdoor work, and meets every cooking problem that arises in a camp.

You will find the Gurney-Oxford Tubular Heater in lumber and mining camps from one end of Canada to the other.

It has a large, unrestricted radiating surface, and door and inside capacity for burning the largest and roughest kind of wood.

The body is made of heavy gauge, unbreakable steel. The shelves (see illustration) are adjustable on top or on sides.

The shelves and legs can be removed and placed in inside the stove for transporting.

This is a most satisfactory and popular heater for cabins, shanties and bunkhouses.

Prices or a sample will be forwarded on application to

The Gurney Foundry Co., Limited

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GURNEY-OXFORD

Branches at Hamilton, Montreal, Winnipeg, Calgary, Edmonton, Vancouver

Established 1843

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Cant Hooks, Boom Chains, Timber Dogs

It is time to think about your logging equipment for the ensuing season.
Let us figure on your requirements for Peavies, Cant Hooks, Timber Dogs, Boom Chains, and Shackles, Mill Chains, Forged Steel, Log Stamping, Hammers, etc.
Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

Write us for particulars and prices

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THE PETER GERLACH Co
MANUFACTURERS AND BUILDERS OF
CIRCULAR AND CYLINDER SAWS
STAVE HEADING AND BARREL MACHINERY
SAW AND LOGGING TOOLS
For the Manufacture of the Following

STAVES	HEADING
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HOOPS	HANDLES
PAILS	TUBS
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CANDY PAILS	FISH KITS
BOX BOARDS	BOTTOMS
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CLOTHES PINS	LUMBER

COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
THE PETER GERLACH Co. CLEVELAND, O. U.S.A.

"CANADIAN MADE"

Fourdrinier Wires and Cylinder Covers

Manufactured in Ottawa by the

Capital Wire Cloth & Mfg. Co. Limited

Dandy Rolls and Cylinder Moulds Repaired and Recovered

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

POWER PLANT

2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The

Parry Sound Lumber Co. Limited

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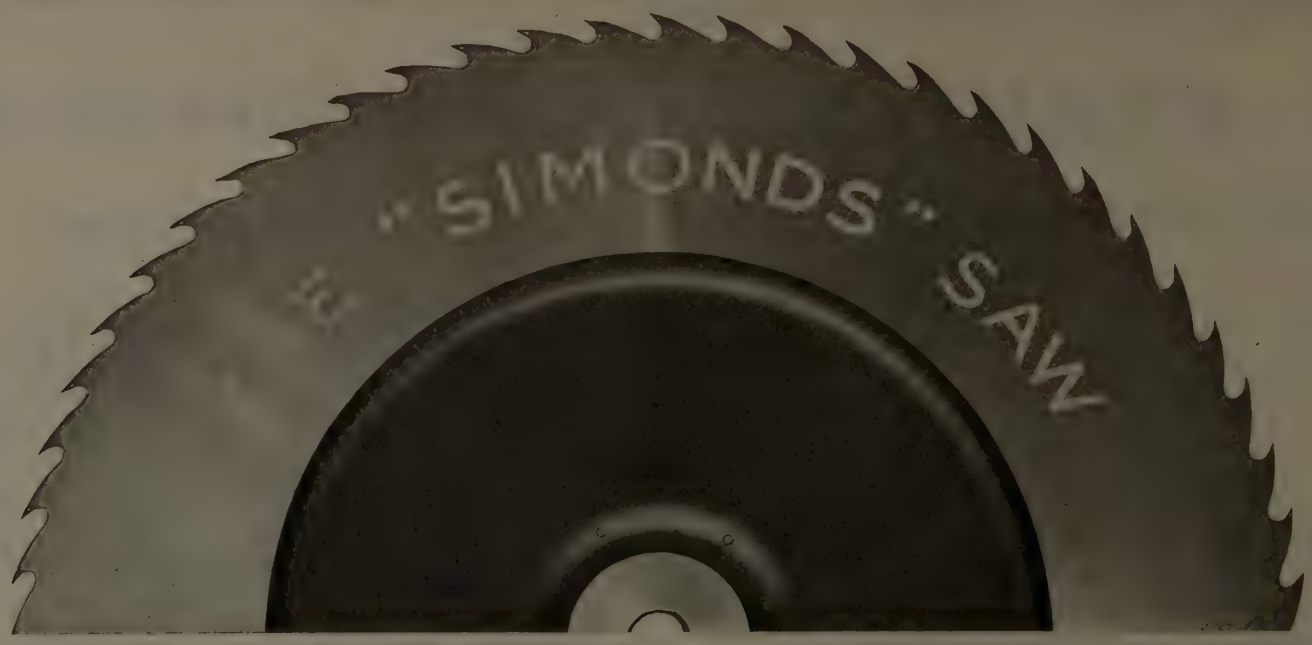

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of all kinds are always dependable, and that means more to a mill owner than anything else. Write us for prices on any kind of a Saw or Planer knife.

Simonds Canada Saw Company, Limited

Montreal, Que.

Vancouver, B. C. **St. John, N. B.**

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Doors, Columns, Sash Mouldings

We have just issued a handsome catalogue on doors and also a moulding, sash and column catalogue.

If you are interested in high-class doors and trim such as the B.B.L. Line we will be pleased to send you copies of these catalogues.

Write us to-day

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Box 416 **Telephone 141**

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 34 Toronto, July 1, 1914 No. 13

Poor Drives May Reduce Sawing Season

To the many factors which have been affecting lumber trade conditions in Eastern Canada recently, there has now been added the further and very important one, that the results of the drives on many of the large rivers have not been satisfactory. In a large number of reports upon this subject, which have been received by the Canada Lumberman, it is stated that many logs are being left behind in the small streams. One feature of the situation is the fact that the past winter was a favorable one for logging, and larger quantities than usual were taken out in a good many cases, so that operating expenses were reduced to some extent. Nevertheless, if any considerable quantities of logs are to be left in the woods through the next winter—and at present there seems to be no other possible result—the effect will be of much importance, as it will involve not only a possible shortage of logs for the mills, but also a reduction of the sawing season. No one at present seems inclined to predict whether this will result in higher prices or not. Lumbermen, as a result of long and bitter experience, have gone out of the prophesying business, but it is easy to see that most of them are of the opinion that the shortage of logs, at present expected, will cause a considerable reduction in the quantity of lumber produced this year, and that prices will be higher in the near future. It may be assumed that in coming to this conclusion the wish has been father to the thought in many cases, but it seems probable also that the thought is a fairly accurate one.

An analysis of the trade situation today shows a fairly persistent demand for lumber well spread out throughout the cities and country districts, but more noticeable in the cities than elsewhere. This is acknowledged to be the case, even in the face of the long continued and quite general trade depression. It is widely believed now, that the bottom has been reached and that industry is on the up-grade, bringing a return—gradual as it may be—of confidence which will result in expansion of industrial activity and general improvement in trade conditions. This situation may be altered one way or another many times before actual trade confidence returns. Many factors may cause further delays. Wars, legislation, and political unrest of many kinds, may prevent the resumption of activity until a later period than most people expect, but the indications today are that matters are improving steadily, but surely, and that better times are not far off. If this belief is well formed it is not unreasonable to conclude that in eastern Canada, any pronounced shortage of logs will result in higher prices for lumber. That a shortage of logs is certain to develop is pretty well acknowledged now, and those who are keeping close tab on the situation are daily coming more definitely to the conclusion that the end of the coming season will see considerable improvement in trade conditions, and prices which will make up to some extent for the lack of trade which has prevailed for many months.

Canadian Crop Reports Encouraging

In a bulletin issued on June 12th by the Census and Statistics Office at Ottawa, preliminary estimates are given of the areas sown to the principal grain crops in Canada as well as reports on their condition according to returns made by crop-reporting correspondents on June 1. The reports show that, throughout the Maritime Provinces, seeding was delayed through the lateness of the spring. In Ontario and Quebec the condition of grain is generally satisfactory, notwithstanding a long spell of dry weather. In many places however, the meadows were beginning to suffer from the effects of drought. Conditions throughout the west were reported as generally favorable, though rains would be welcome, especially in Manitoba and southern Alberta.

The total area under wheat in Canada is provisionally estimated at 11,203,800 acres, or 188,800 acres more than in 1913. The area under spring wheat is reported as 10,230,500 acres, or 185,500 acres more than in 1913, and the area expected to be harvested of fall wheat is 973,300 acres or 3,300 acres more than last year. The acreage of oats is placed at 10,811,000 acres as compared with 10,434,000 acres last year, an increase of 377,000 acres. Barley occupies 1,604,000 acres, or 9,000 acres less than last year and rye 111,000 acres as compared with 119,300 acres last year. The estimated area under hay and clover is 8,206,000 acres as compared with 8,169,000 acres in 1913.

In the three Northwest provinces, Manitoba, Saskatchewan and Alberta, the total wheat area is 10,247,400 acres as compared with 10,036,000 acres in 1913; that of oats at 6,086,000 acres as compared with 5,792,000 acres in 1913; that of barley at 1,041,000 as compared with 1,025,000 acres in 1913. These differences represent increases of 211,400 acres for wheat, 294,000 acres for oats and 16,000 acres for barley; or a total increase of 521,400 acres for the three crops as compared with 1913. The wheat area in Manitoba is somewhat less than last year, viz.: 2,788,000 acres as compared with 2,804,000 acres in 1913. In Saskatchewan the area under wheat is 5,848,300 acres as compared with 5,720,000 acres, and in Alberta it is 1,611,100 acres against 1,512,000 acres.

On June 1 the condition of field crops, as measured by a standard in which 100 represents the promise of a full crop was very favorable. The points are as follows: Fall wheat 79, spring wheat 93, all wheat 91, oats and barley 92, rye 89, peas 92, mixed grains 93, hay and clover 90, alfalfa 88 and pastures 90.

Assuming that the conditions between now and harvest will be equal to the average of the past four years 1910-1913, the above percentages represent the promise of yields equal to the four year average in the case of spring wheat, rye and barley and inferior in the case of oats by 1 per cent. and in the case of fall wheat by 2 per cent.

Recent reports from Fredericton, N.B., state that forest fires broke out in several sections of New Brunswick about the middle of June. One fire was threatening serious damage to the village of Blissfield near Boisetown.

The Reader's Viewpoint on Trade Topics

Retailers Report Good Trade Conditions—Drives in Poor Shape On the Ottawa and the St. Maurice

Letters which have been received by the Canada Lumberman recently all point to a shortage in the quantity of logs which will be taken out of the Ottawa Valley during the present year. Although a good sawing season was experienced last winter, the drives during the spring and early part of the summer have not been favored with a sufficient supply of water. The result is that in many districts, a quantity of logs will be left in the woods until next driving season. One of the largest manufacturers in the Ottawa Valley, writing under date of June 15th says:—"This season has been an exceptionally bad one for saw log driving. The water has been excessively low, as a result of there having been no spring freshets whatever. We have had altogether, only a few light showers of rain during the months of April and May, and up till the middle of June. Just how many logs will be left behind in the small streams we do not know, but unless we have rain very soon there will be great difficulty in driving the large streams. It is a nice question indeed whether Ottawa mills generally will have sufficient logs to carry them through this sawing season. Some of the mills have been running from hand-to-mouth, not having more than two or three days supply ahead of them. A good rain in the near future would improve conditions greatly, but that it would insure a supply of logs for the season, we think is a matter of very great doubt.

"As to the effect upon the market, we are really not in a position to say. If this conditions prevails throughout all of Ontario and Quebec, of course there is no doubt as to the effect upon the market, but if it is only the Ottawa and its tributaries that are suffering we do not think that this would be sufficient to effect conditions seriously."

In regard to the above letter, other reports which have been received and published in the Canada Lumberman during the past month or two, indicate that similar conditions, to a greater or less extent, exist in all parts of Northern Ontario, in some parts of Quebec and also in parts of New Brunswick and Nova Scotia. It is still too early to say definitely that the shortage of logs will result in any advance of prices, but those who are in close touch with the situation are already pretty well convinced that it will at least have the effect of stiffening the market and keeping prices at least at their present level.

St. Maurice Drives Fifty Million Short

Editor Canada Lumberman: Grand Mere, P.Q., June 20th.

The winter of 1913-14, while unusually cold was characterized by a very light snowfall which did not begin until nearly the last of December, and owing to the cold, late spring, melted very slowly, with the result that, in the valley of the St. Maurice River, low water conditions prevailed. A cold, dry April and May aggravated this condition and made river driving difficult. Small creeks which are usually driven without any trouble could not be cleared, and many logs must lie over for a year. The main river has also been, and remains, very low, and only a proportion of logs which were started have as yet come down.

The saw mills at Three Rivers usually start up about the first of June, but so far, none of them have commenced work. Last season there were about 135,000,000 ft. b.m. of logs on the St. Maurice and the shortage this year will probably be about 50,000,000 ft. b.m. As the stocks on hand are light, this will mean that the supply will be much shorter than usual, and as the demand is fairly good, prices should rule considerably higher, and the wise buyer will provide for his needs as early as possible.

The paper mills on the river, knowing that conditions like the present are likely to happen, have been in the habit of holding over a supply of logs in an accessible situation and will not be affected by present shortage. The Quebec and St. Maurice Industrial Company, The Laurentide Company and the Belgo-Canadian Pulp & Paper Company all have sufficient stocks of pulpwood to carry them through the year.

The end of the present period of depression is now in sight, and before autumn, business of all kinds should begin to return to its normal state and a period of prosperity warranted by the soundness of underlying conditions begin.—Laurentide Company, Limited.

St. Maurice Driving Conditions Unfavorable

Editor Canada Lumberman: Shawinigan Falls, P.Q., June 17.

Water conditions so far have been unfavorable for driving operations in the St. Maurice Valley. I am not aware of the results in connection with other companies, but so far as our company is concerned, we are still sure of enough wood for our yearly provision, but the driving of it will cost more than we had anticipated.

I hear that driving conditions are unfavorable all over the country, but I do not think that this will affect the lumber market seriously, as there does not seem to be a very heavy demand for this year's cut.—Belgo-Canadian Pulp & Paper Company, Limited.

Editor Canada Lumberman: Three Rivers, P.Q., June 29.

We have been successful in getting all our logs out this year, although water conditions have been very unsatisfactory.—The Burrill Lumber Company.

Estate James Davidson Getting Their Logs Out

Editor Canada Lumberman:— Ottawa, June 15.

Owing to there having been such a small rain fall during the last few months, the water in the Ottawa River and its tributaries is very low at the present time and for this reason we are afraid that quite a number of the lumbermen of this Valley will be held up with their drives.

It is a little early yet to speak definitely as to whether all the drives will come out, but, so far as we are concerned, we think we will be successful in getting all our logs to our mill this season. Owing to the space in our log pond being limited, it is necessary for us to make two drives of our logs, and at the present time we have received the first drive, and are working on the second.

If the drives are held up by low water the result will be that sawmills will have to shut down early, which will no doubt make the price of lumber advance.—Estate James Davidson.

Ottawa Driving Conditions Poor

Editor Canada Lumberman:— Ottawa, June 15.

From reports that have come to hand from "Upper River" points, the driving conditions are none too good, owing to the long drought which has caused the river to fall rapidly. Lumbermen in the Ottawa Valley in general are experiencing great difficulty in bringing their logs and pulpwood to the Ottawa River itself. While I have, personally, been able to take out some of my logs and pulpwood, where the drives were short and had the advantage of early spring freshets, there are other drives in which I am interested which are now stuck, and these conditions prevail generally, I am led to understand, with the other lumbermen of the Ottawa River.—Ottawa Valley Manufacturer.

Many Ottawa Drives Having Difficulties

One of the large operators in the Ottawa Valley, in a recent letter to the Canada Lumberman, reports that the driving conditions on the Ottawa during the present year have been the worst that he has ever known. There was very little snow in the section of the country in which he operates and there had been no rain up to the middle of June. From information which he had received, he believed that this condition was general. "We have all our creek drives out into the main river, he says, "and will get our logs down to the mills, but the driving conditions could not have been much worse and we believe that, owing to the quantity of logs that will be stuck, the cut is very likely to be short."

Dennis Canadian Drives Successful

Editor Canada Lumberman:— Whitby, Ont., June 11.

In this locality there are but two drives, that of Dyment-Mickle Company to their Bellwood mill, and our own. Both these drives will reach the mills in usual time as there is plenty of lake surface behind to furnish water. There was no rainfall whatever here, all through the month of May except a slight trace on two occasions and but one shower of thirty minutes' duration so far in June.

Forest fires have been very general for the past month, and damage to standing timber as well as to other forms of property has been serious, but the fires have apparently burned themselves out and are not doing much damage now.—Dennis Canadian Company.

Many Small Drives Held Up

Editor Canada Lumberman:— Papineauville, P.Q., June 15.

We understand that quite a number of small drives have been held up in this vicinity, especially on small streams, owing to shortage of

water. The result will be a smaller supply of logs for some mills, but we do not think this will have any great effect on prices. As far as we are concerned, our logs are all on main streams and we do not anticipate any shortage. In fact, we expect a long sawing season.—Papineauville Lumber Company, Limited.

Minden Firm Doing a Prosperous Business

Editor Canada Lumberman: Minden, Ont., June 19.

Our retail business this year is as good as in an average year. We do not conduct a large retail business, but it is in a prosperous condition. The summer of 1912 was an extra good one from a business point of view, but on account of the money market being tight, we believe, that some people were kept from doing the normal amount of building in the summer of 1913. During the present season building seems to be going on very extensively. This is a rural district, but one which is growing in popularity with tourists. We supply lumber for many of their cottages. Last year, the tourists' trade was not large, possibly on account of the money stringency, but this year prospects seem to be up to the average.

We supply considerable material for government and municipal bridges, etc., and there is a normal amount of work of this kind in progress.

In our wholesale business the market seems to be a little slow. The fact that wholesalers are at present finding trade rather quiet, while some retailers are quite busy, is probably the result of many retail dealers having been well stocked last season. While they are doing a good business, they are running off considerable of their old stock before ordering now. For this reason, while the retail trade is up to the average, the wholesale trade is slow. As soon as the retailers reduce their stock a little, they will be buying again, and the wholesale trade will brighten up.—Rogers Bros.

Trade at Ottawa Good at Present

Editor Canada Lumberman: Ottawa, June 19.

Trade conditions in this vicinity, just at the present time, are quite good. There is considerable building activity, but the indications point rather to reduction than to increase, as the building permits have shown a considerable falling off in volume from those of last year.

In our judgment, this condition is due very largely to the fact that money is hard to get and that rates are high, both of which prohibit the speculative builder from engaging in his regular occupation, to a considerable extent. With loans hard to get and at a premium, the speculative builder cannot show a good return upon his investment. The general business depression, of course, affects building to a very considerable extent, as firms who are contemplating additions to their buildings, etc., are postponing construction until a more favorable period. From information which we have received, most of the retail lumbermen are not over-stocked at the present time. This, to some extent, is the cause of the fair activity in out of town orders at the present time.—The McAuliffe Davis Lumber Company, Limited.

Another Encouraging Exception

Editor Canada Lumberman: Stouffville, Ont., June 16.

In looking over the letters to the editor of the Canada Lumberman dealing with trade conditions, we notice that several correspondents are not reporting very bright business prospects for this season. This is not the case with us. We never had brighter prospects, especially in connection with shingles. We have sold as much lumber as usual, and on the whole, our business is better than that of last year. Our planing mill is running with orders ahead, and with the very best prospects for a good business this year. Prices are about the same with us as they were last season. We handle several side lines, and of course this helps to bring our sales up.

Crops are looking fine in this district, and this tends to make business better.

Wood shingles are in great demand around here now, as against metal shingles in some other districts. We find collections somewhat easier than last year at this time, and our thirty day plan is working splendidly.—D. M. Heise & Company.

Sounds Like the Good Old Times

Editor Canada Lumberman:— South Lancaster, Ont., June 12.

We were successful in getting out our drives this year and nothing was left in the river, and although we experienced some difficulty owing to the conditions of the streams, we took advantage of the floods as they came and got our drives out in record time.

We had three streams to the total of 40,000 logs and, as to the cost, it was not any greater than last year, owing to the fact that we had double the quantity of stuff.

Business conditions are very much better than last year and our turn-over will increase over 100 per cent. Our mill has been running night and all day to keep up with orders.—St. Lawrence Lumber & Box Company.

Read This and Cheer Up

Editor Canada Lumberman: Renfrew, Ont., June 18.

Business this year, up to the present month, has been better than in any previous year, and we are finding great difficulty in getting our orders filled promptly. We have on our books more orders than at any previous time in our history. Trade locally is good and buildings are being rushed by the builders in this town, and we are disposing of much more stock locally than heretofore.

On our business at Lancaster, under the name of the St. Lawrence Lumber & Box Company, we find that trade has increased 150 per cent this year and it is giving us all we can do to look after the increasing local trade and supply the demand for our outside trade. Conditions were never better than they are to-day.

We still find it difficult to get satisfactory mill help, but ordinary labor is easier to obtain than it was last year.

We have no complaint to make as to trade and see no cause for worry in the immediate future.—Chas. A. Duff.

Expecting An Early Revival

Editor Canada Lumberman: Fort William, Ont., June 15.

As far as we are able to judge, the demand for lumber this year is small compared with previous years, although there are quite a number of residences being built.

We are looking for a revival of trade in the near future. Conditions in the two cities of Fort William and Port Arthur are a little better than at points both east and west of us. It is hard to account for local depression, except by saying that we are more or less affected by the general conditions prevailing throughout the country, but we remain "optimistic."—Greer Bros. & Company.

Finds Western Demand Slow

Editor Canada Lumberman: Savanne, Ont., June 19.

We sell our lumber almost entirely in Manitoba, and therefore are not much interested in the Ontario market. We believe that the demand is very slow all over the west at present and that the same conditions obtain also in our own province. We have not been operating during the past two years and not having had any stock for sale, have not been closely interested in the market. We are sawing lumber again this year, but have not offered any for sale yet. We expect to start shipping next month.—Hogan Bros.

Substitutes Reducing Demand for Lumber

Editor Canada Lumberman: Port Perry, Ont., June 19.

On account of very high cost, lumber and its products in this vicinity are being driven out of the market to some extent by cement, metal, and patent roofings. In other respects, the trade is fair, and is made up mostly of repairing, pulling down old barns and rebuilding. New houses are very scarce, although an occasional one is going up.

I have had a larger business this year than last in both lumber and wood shingles.—C. L. Vickery.

Finds Trade Fairly Brisk

Editor Canada Lumberman: Leonard, Ont., June 16.

I find the trade in rough lumber in this district as good as in other years. I have only been handling finished stock, such as flooring and dressed sheathing for two years, but I am doing more business in the finish line this year than last year. As a whole I find that trade is fairly brisk.—R. A. Poaps.

Poor Demand At Port Sydney, Ont.

Editor Canada Lumberman: Port Sydney, Ont., June 19.

There does not seem to be the same demand for lumber this year as there was last year. I do not think that the demand in many places for renting and purchasing houses is as great as it was during the few years that have just past.—A. Sydney Smith.

A Cheerful Note

Editor Canada Lumberman: MacLennan, Ont., June 15.

I am pleased to report that trade in this district is good. I have orders on hand to keep me busy for three months ahead. Prospects were never better than at present.—John Rydall.

Hemlock Logging Across the Boundary

Description of the Development of an Important Industry in Northern Pennsylvania —Great Changes Brought About by Machinery in Logging

By H. P. Welch

The author, who is Superintendent of manufacturing and shipping for a Large Pennsylvania mill, tells interestingly of operating methods in connection with an important competitor of Ontario Hemlock. Future articles will describe logging by machinery and modern manufacturing methods.

PREVIOUS to the early seventies very little attention was given to the manufacture of hemlock lumber in Northern Pennsylvania. Up to that time (in the soft woods) white pine was used almost exclusively in this section of the state for building material which was being used in constantly increasing quantities. It is estimated that, in Tioga County alone, between the year 1804 (the year the county was organized) and the year 1865, one thousand million feet of white pine lumber was cut and marketed at an average price of seven dollars and fifty cents per thousand feet. What pine was then left was mostly owned by large and powerful companies who had received, up to the year 1885, about eighteen to twenty dollars per thousand feet. Since that time much larger prices prevailed, until today, white pine costs almost fabulous prices to those who can afford to buy it. There is very little left in Pennsylvania.

With the building of immense tanneries throughout northern and western Pennsylvania in the seventies and early eighties, there was created a demand for immence quantities of hemlock bark, which was peeled. In many instances the trunks of the trees were left on the ground to rot or be destroyed by fire.

At this time, owing to the constantly diminishing supply of pine timber and the constantly increasing price of lumber, architects and builders began making experiments with hemlock lumber and found it to give satisfactory results as to strength and fiber, and to be valuable as a building material. In many instances, on account of obtaining a pure water supply (which is necessary in the successful manufacture of leather), also to be in close proximity to the bark, tanneries were located back in the mountains, among the vast forests of hemlock timber, where hides had to be hauled long distances with teams, over mountainous roads, before finally reaching their destination, where they were to be made into leather. This left the timber usually in almost inaccessible places, where it would require miles of haulage over almost impassible roads at certain periods of the year, and in most cases costing more to get it manufactured and in the market than could be procured for it when sold. For this reason, as stated above, much was left in the woods where it was cut.

Probably nowhere in the world have grown such magnificent hemlock trees as stood in the forests situated on the watersheds of the Allegheny and Susquehanna rivers, in an altitude of from 750 to 2,500 feet. There are two distinct species of hemlock, the white hemlock, which usually grows on plateaus and dry mountainous slopes, and the red hemlock which usually grows on low wet ground. The former is found tall, sound and straight and when cut into lumber usually grades much higher than the latter.

Until the early eighties, what attention had been given to the logging of hemlock had been confined almost exclusively to timber which lay in the most accessible places for logging and for marketing. Usually, this timber was located near the larger streams which were accessible for driving or floating logs down the streams to mills situated generally at some point which connected with a trunk line of railroad to insure quick transportation of manufactured products. Most of this timber was logged or skidded to the streams by horses or oxen in the winter months, to be floated down to the mills during the spring freshets, or high water. In many cases large splash dams were built on small streams where the water was limited for driving and where there was considerable area above for the accumulation of a large body of water. Millions of feet of logs were driven out of watersheds in Northern Pennsylvania, on the crests of floods created by splash dams, to the larger streams below, that could not have been logged with profit, at that period in any other manner. In many cases above the dams where there was no water available for floating, slides or chutes were built along the mountain sides, sometimes for miles, and the logs were trailed to the water in the dams to be liberated on the first rise of water from the rains and melting snows of spring. Many sad stories might be told of the lives that were lost by drowning in the floods, or by being crushed out by the jams of logs that were liberated on lifting the gates and releasing the waters of these immense reservoirs.

At this time there were also many small portable mills scattered over this section of the country, cutting up the logs that were being cut from clearing small parcels of land by farmers who thought the land, cleared for farming purposes of much more value than the timber. The price of stumpage at this time was just about what the bark was worth, and the logs usually brought from 25 cents to 50 cents per thousand feet stripped of the bark in the woods, when a purchaser could be found. It might be added that the price of hemlock lumber was about the price of stumpage plus the cost of manufacture. In the year 1888 the writer bought strictly clear hemlock boards at the mill for a price of six dollars per thousand feet, and log run grades for somewhat less.

The price of hemlock lumber, with slight variations, from 1880 to 1904 was from $7.00 to $14.00 per thousand feet. From 1904 to 1911 it went from $14 to the highest base price of $22 per thousand feet. Since that time there has been but little change.

The average yield or cut per acre of hemlock logs in Pennsylvania, was approximately 15,000 feet and the logs would average in most cases about 6 or 7 to the thousand.

1.—Logs being delivered to slide

2.—Opening a large splash dam

3.—Many miles below the Dam—bringing up the drive

4.—Log loader filling the flat cars

During this period, the demand for hemlock lumber steadily increased, until the timber in the most accessible places was worked up. There still stood immense quantities of the finest hemlock in the northern part of the state, situated on high steep rocky ground that seemed almost impossible to lumber with profit by any of the methods previously used, and lumbermen began to study methods and means for logging on a more economical basis. This was brought about by the invention of the steam log loader and the mountain climbing locomotive. From this time on, the future success of the business was assured and those who had secured timber lands previous to this time on the lower market values laid the foundation for some of the largest fortunes ever made in this section of the state.

The illustrations accompanying this article give an excellent idea of the methods of operation in use in hemlock logging in Northern Pennsylvania to-day.

No. 1 portrays a logging scene on blockhouse creek, in Lycoming County, Pa., and shows the upper end of a slide, where logs are being delivered to it. Millions of feet of logs were delivered to the splash dams through this slide and eventually found their way to the booms at Williamsport, Pa., on the west branch of the Susquehanna River.

No. 2 gives an idea of what a large splash looks like when the waters are liberated and logs started on their last journey to the mills. This is a scene on Little Pine Creek, Watershed of Susquehanna River.

No. 3 shows the operations many miles below the dam where the men are bringing up the drive.

No. 4 shows a log loader at work on Frozen Run, Lycoming Co., Pa., headwaters of Lycoming Creek, on the Watershed of the Susquehanna River. The logs are delivered to the mill by rail.

No. 5 shows a landing at the foot of a slide. The log loader is at work loading logs on cars to be transported to the mills by rail.

No. 6 shows logs in the pond at the concrete mill of the Central Pennsylvania Lumber Company at Sheffield, Pa. This was the first electrically driven concrete mill ever built and marked a step far in advance in the improved methods of manufacturing lumber up to that time. It is still probably the finest mill in the state.

Preservative for Warping Lines

Editor Canada Lumberman: Coe Hill, Ont., June 12.

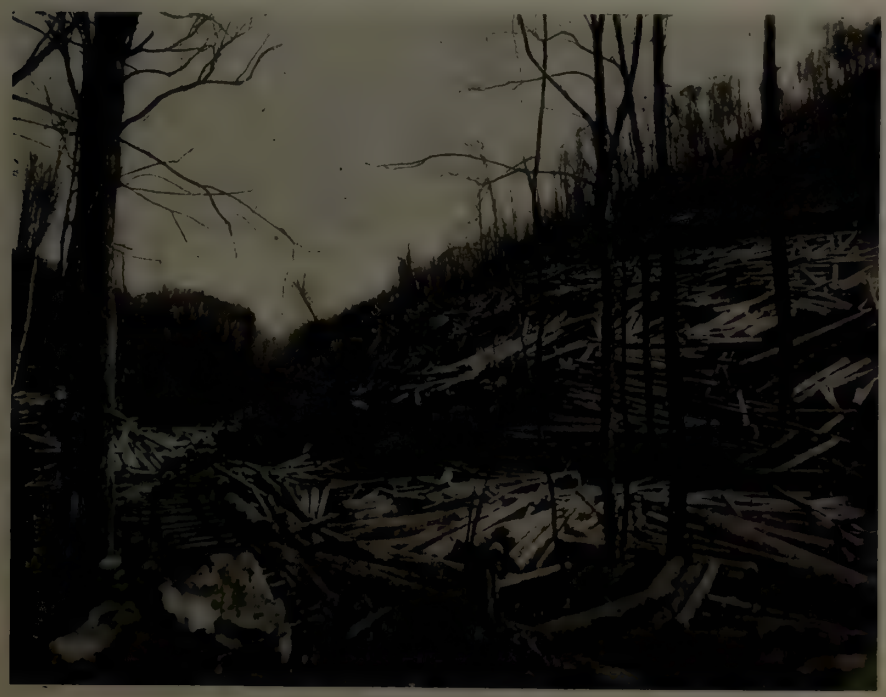
Can you advise me of a good preparation for putting upon a warping line, to prevent it from rotting when not in use?—L. Purdy.

West, Peachey & Sons, manufacturers of steam warping tugs, Simcoe, Ont., report that wire manufacturers recommend special preparations of graphite grease, both for lubrication when in use, and for preventing rust when not in use.

A good mixture to prevent rusting when not in use is, three parts of linseed oil to one part of pine tar, thoroughly mixed and put on warm.

For hemp or manilla rope, raw linseed oil will serve the purpose. A cheap grade of oil is good enough for either wire or hemp. It should be applied with a brush or swab or in any way so long as the line is well covered.

The man who hunts around among the lumber mills to find what will fit in with his work best usually finds something worth while, but the man simply hunting for bargains seldom gets more for his money.



5.—A landing at the foot of a slide

6.—Logs at the Pond—note the Concrete Mill

National Hardwood Annual Convention

President Barnaby Defends 1913 Rules Against Attacks by Furniture Federation—E. V. Babcock the New President—Members Splendidly Entertained

President C. H. Barnaby

The 17th annual convention of the National Hardwood Lumber Association was held at Buffalo, N.Y., on June 18th and 19th and was far and away the most successful convention that the Association has ever held. The attendance was very large and all the business meetings were attended by a large percentage of those who were present. Entertainment features of a very successful nature were mixed with the business features of the convention in such a manner that those who attented were able to enjoy themselves very thoroughly during their short stay in Buffalo.

On the first day of the convention, the most interesting event was the annual address of the president, Mr. Chas. H. Barnaby. Mr. Barnaby's remarks dealt extensively with the action of the furniture manufacturers in their enedavor to discredit the 1913 inspection rules of the Association. He discussed this situation minutely, pointing out the absurdity of many of the misrepresentations made by the furniture men, which he branded as false and malicious. He expressed also the firm determination of the Association to follow along the lines which had already been laid down and to maintain its rights. At the same time he put particular emphasis upon the fact that the National Hardwood Lumber Association had no disagreement with the great body of lumber consumers, pointing out that the opposition upon the part of the furniture manufacturers had arisen through a number of well-meaning consumers being misled by a few dissatisfied members of the trade.

A noticeable feature of the convention was the fact that a very creditable showing was made by Canadian members, many of whom were present and followed closely all the proceedings of the various sessions.

Interesting addresses of welcome were delivered by Mr. J. P. Sullivan, president of the Buffalo Board of Aldermen, and Mr. A. W. Kreinheder, president of the Buffalo Lumber Exchange, while a fitting reply was delivered by Mr. John M. Woods, Somerville, Mass.

President Barnaby's Address

After the addresses of welcome and the reply, the Association settled down to its practical business programme which was opened by the address of the president. After a few opening remarks the president stated that the Association had made excellent progress during the year and in the face of adverse business conditions had shown an increase in membership to the extent of 35. Considering that the Association is now seventeen years of age this was an excellent showing because, approximately 12 to 15 per cent of the membership went out of the lumber business annually, so that it was necessary to add about 100 new members every fiscal year in order to prevent an actual loss.

Dealing with business conditions during the year which has passed, Mr. Barnaby said: "While we must concede that the demand for lumber is far from normal, I believe there exist excellent reasons for taking an optimistic view of the future. The depression is no more than would naturally follow a marked change in administrative policies and as far as your chairman has observed, stocks in the hands of consumers are very low and the hand-to-mouth policy of buying is the present attitude of a majority of them—so naturally, when business does resume we may all expect a splendid demand. In the meantime, it may be wise to reflect the attitude of our Government along the lines of 'watchful waiting.'"

Referring to the work of the Association during the past year, the president said that the Inspection Department showed a total of 161,000,000 feet inspected by the salaried and fee inspectors of the Association. He believed that this represented over 95 per cent of the hardwood lumber officially inspected during the year. They had reinspected 1,711,000 feet, of which 1,291,000 feet was within the 4 per cent variation, permitted by the rules, leaving 420,000 feet over the 4 per cent. This was a splendid showing in the face of the unusual business conditions prevailing during the year and was a creditable indication of the efficiency of the Association's inspectors.

Dealing with the opposition which has recently developed among furniture and fixture manufacturers in connection with the inspection rules of the Association, Mr. Branaby outlined the situation, showing that the trouble had been originated by a former member of the National Hardwood Lumber Association, who, though a consumer of hardwood lumber also possessed connections with the manufacture of lumber sufficient to entitle him to membership. Not long ago he had resigned, and for good and sufficient reasons, his resignation had been promptly accepted. He however, and another disgruntled consuming member of the National Association had directed their efforts towards making further trouble and had influenced various consuming organizations to discredit and render ineffective the existing rules of inspection. In order to do this, a resolution had been adopted by the furniture and fixture manufacturers, denouncing the existing rules and declaring adherence to the rules of 1912.

Secretary Frank F. Fish

Mr. Barnaby characterized this course as one, the wisdom of which was seriously open to question. The Association since its inception had consistently stood for single and universal standard inspection. In doing so, it had, in a broad sense, served the interests of the consumer, at the same time as those of its members. The standard which it had developed had not only enabled the lumbermen to determine beyond question the grade of lumber they were selling, but it had also enabled the consumer to know with equal certainty the grade of lumber he was buying. The Association was not at war with, or antagonistic to, any line of trade. The 1913 rules of the Association had been unanimously adopted by the largest number of its members ever assembled at a meeting. The apparent contest now existing was not between the Association and the consuming trade as a whole, because that trade was not entirely unaware of the benefits conferred by the Association. The contest was rather the result of agitation on the part of a certain small element of the consuming trade and it was dictated wholly by selfish interests. Therefore, every member of the Association should now stand firmly behind it and refuse absolutely to be forced of cajolled into yielding upon a principle in order to effect a sale. National inspection could only be employed in the application of the rules now in effect.

The opposition to the rules of the Association had resulted in a general federation of furniture and fixture manufacturers representing fourteen regional associations, which had been formed at a meeting in Chicago on May 14th. The immediate efforts of this association had been directed to the substitution of the 1912 rules for those of 1913. The 1912 rules were to be used only until a special committee had drawn up and perfected a set of inspection rules of their own.

The issue, therefore, was fairly joined between the new federation and the National Hardwood Lumber Association. The new federation would only purchase under the 1912 rules until they could form rules of their own. If they were successful, the National Hardwood Lumber Association would have no voice in the inspection and measurement of hardwood lumber so far as this consuming body was concerned. Could any hardwood lumberman imagine the state of affairs that would exist under these circumstances?

Mr. Barnaby dealt in considerable detail with the further development of this situation and the address which had been made at the Chicago meeting of the furniture and fixture manufacturers, also with a number of unfair statements which had there been made. One of these statements was to the effect that, although the furniture manufacturers had requested an opportunity to be heard by the Association, no such opportunity had been afforded. Mr. Barnaby quoted from correspondence to show that the proposal for such a meeting had been welcomed by the National Hardwood Lumber Association, but

that the furniture manufacturers had failed to take advantage of the offer to hold such a meeting.

In conclusion Mr. Barnaby asserted that the hostility developed by the furniture manufacturers was the result of some consumers being unable, any longer, to continue the unfair methods which they had practiced in the past in connection with the inspection of lumber. The hostility was not the result of the slight alterations in the rules which had been made at the 1913 meeting. Those who had misled the consumers had done so through a selfish motive, and, unfortunately, had been able to persuade the rest of the furniture and fixture federation that the National Hardwood Lumber Association was not playing the game fairly.

There was not a consumer of lumber in the country, Mr. Barnaby declared, who did not owe a debt of gratitude to the National Hardwood Lumber Association for the work which it had accomplished. It had at all times been the genuine exponent of fair treatment to all. Any attempt now, or at any other time to destroy its efficiency could only result in failure and bring into disrepute those who were most active in the work of opposition.

What was to be done under the existing conditions of affairs? Simply, let every member protect the integrity of the Association, but at the same time, set about patiently and intelligently to correct the error that had been so widely disseminated among the consuming trade. If this were done in the proper spirit no man need lose a customer or sacrifice a principle. To do more than this at the present time would intensify a bad situation; to do less would be to lose something, the value of which could not be measured in dollars and cents.

Mr. Barnaby's remarks upon this situation were received with unanimous approval by the members of the Association at the convention and it was clearly evident that all present would follow his suggestion in regard to overcoming the opposition which had developed.

The Secretary's Address

The report of the secretary, Mr. Frank F. Fish, was the next event upon the programme. It showed that the Association was in excellent condition in every respect. Mr. Fish stated that the past year had been the most successful the Association had ever experienced, not because of gain in membership or increase in the amount of lumber inspected, but because the past twelve months had been of a nature to test to the uttermost the benefits resulting from associated effort, and in every instance the Association had responded satisfactorily to the test. The service of the inspection department had been of greater value during the past twelve months than during any other time in its history. A slacking demand for lumber inevitably brought a more technical inspection, yet wherever national inspection was in force a line was drawn beyond which neither the necessitous nor the greedy buyer could go. Because of the protection thus afforded to the members of the Association, some consumers had become restive, but united co-operation among the members of the National Hardwood Lumber Association would easily demonstrate that these consumers were in error, and also that the Association intended to wrong no one, but to see also that no one wronged its members. When this became thoroughly understood, the slight discord at present prevailing would pass away.

The secretary then gave a detailed analysis of the work of the Association during the year, referring to the growth in membership and also the increase in the quantity of lumber inspected, mention of which has been made above. He drew particular attention to the work of the reporting department which was established two years ago. Through this department the Association had been successful in furnishing information of great value to many members and had laid the basis for a successful reporting department. They had found that the majority of the large consumers throughout the United States and Canada were willing to extend their co-operation, not only by furnishing statements of assets and liabilities, but also by filing a list of their annual requirements in hardwoods, a feature not heretofore covered by any trade association or merchantable agency. The Association intended during the coming year to give this department closer attention, and, by introducing several new features, to establish a service of still greater value.

A motion was carried to the effect that the reports of the president and the secretary-treasurer be received and filed and that a committee of three be appointed to take up the recommendations contained in the reports. The president appointed the following committee for this purpose:—W. H. Russe, chairman; Fred A. Diggins, and Oliver O. Agler.

A committee was also appointed to consider all resolutions submitted to the convention before they were introduced on the floor. This committee was made up as follows:—Earl Palmer, chairman; Hugh McLean and Theodore Fathauer.

The report of the forestry committee was presented by the chairman, Mr. John M. Woods, and contained a strong plea for the removal of the management of the forest interests of the country from party politics. The experience of the past, and present conditions, together with the needs of the future, demanded that this great national asset should be placed under the control and management of men of wide forestry experience, absolutely honest, and of demonstrated business ability. It needed no prophet to foretell the future of the supply of merchantable timber of all kinds. Therefore it seemed to be a wise thing to begin, both in the State and in the Nation, a system of reforestation of land unsuitable for agriculture or for any other purpose except the growing of timber.

The report also referred in scathing terms to the apparent unwillingness of Congress to adopt definite or satisfactory forestry policy.

Reports were also presented by the transportation committee and the waterways committee.

At the convention on Thursday, June 18th, all the visiting members of the Association were entertained, by the Buffalo Lumber Exchange, to a trip to Niagara Falls. Twelve special cars left the hotel at 2 p.m., carrying the visitors and the Buffalo lumbermen. The trip included all the interesting points on both sides of the international boundary between Niagara Falls, Ont., and Lewiston on the American side, and Niagara Falls, Ont., and Queenston on the Canadian side. In the evening the guests were entertained at dinner at the Clifton Hotel, the Buffalo Lumber Exchange and the National Hardwood Association being their hosts.

On Friday, June 19th, the most interesting feature of the programme was an excellent address by Mr. E. F. Trefz, field secretary of the Chamber of Commerce, U.S.A., who spoke upon "The new crisis and the new patriotism."

All over the country to-day, Mr. Trefz said, there was a sweep of opinion against business. It was more serious than merely an attack against business institutions. It was an attack upon property rights. Business men were being awakened to a realization of their responsibilities and duties. The day had come when the welcher in business must show his colors. He had to wipe out the yellow streak and exercise a man's privileges. The business men must strike out straight from the shoulder and say out loud what they wanted their government to do, and then back it up. This could not be done playing the game differently and alone. Although hardwood lumbermen had their problems and were doing great things to solve them, they knew that organization was a great thing. By gathering together in an association they learned to have confidence in one another and to feel that they were backed up by men who were thinking along the same lines as they themselves.

Mr. Trefz believed that one reason why they were having so much difficulty in the United States to-day was that they were overcapaciated in their factories. If all of their factories would work full time for 90 days, he believed that they could produce anything that the people of the United States would actually want for a whole year.

All of them must work through one common centre. Two years ago the chamber of commerce of the United States had been organized at Washington on the call of Mr. Taft, who realized that the administration ought to be closer to all of the business interests of the country. One thousand men assembled at Washington and organized this Chamber. Within the last two years the Chamber of Commerce had become numerically the strongest federated commercial body in the world; an institution that brought together the lumber people, the shoe people, the steel people, the retailer, the wholesaler, manufacturers, the real estate dealer, all of the men who were engaged in business, and whenever a question came up that had to do with business, insofar as legislation was concerned, a referendum was taken on that subject. In that way, they were gradually getting one million and a quarter of business men to come together in close co-operation. But passing the referendum was not the whole thing. They must get the vote of the people and then back it up. Mr. Taft had vetoed the bill for the prosecution of trusts, which provided that there should be no prosecution of labor unions, or agricultural associations. Mr. Wilson had signed the bill. The Chamber of Commerce was now declaring that it was unconstitutional and contrary to the fundamental principles of American freedom to give any man a right that was not given to another man.

"I think a new patriotism is sweeping over this country and business men are realizing that it is becoming more and more difficult to keep what they have; that the course of many national problems is becoming suicidal and that it is doubtful whether the maxim, 'equal rights to all,' is in truth a fact. They are realizing that with less hammering of business, business men can accomplish a great deal more that will be for the best interests of all; and that is what the Chamber of Commerce of the United States is trying to do. Everything that it attempts to do is out in the open; everything that it does is done openly, is the subject of newspaper comment. There is nothing concealed by it. It simply presents the views of the various business communities throughout the country. When we take action, the result of our work is sent to the members of Congress."

"Our Congressmen and our representatives in the Senate are learning that business men are not asking anything that will harm the country, but that they are asking only for such things, for such legislative action as will bring about stable prosperity and the largest

amount of happiness to the greatest number; and we all know that business prosperity, the prosperity of our business men, contributes more than anything else perhaps to the general prosperity of this country."

"You and I know that we must know as much political economy and the things that are good for the business man as the average workman, who can sit down and talk political economy and do it quite intelligently. He is quite a student although unhappily only on one side of most important subjects. We must try to start a course of counter-education; give the people enlightened intelligence on these subjects and let them understand that the greatest wrong that can be inflicted upon a nation lies in the injustice of the judgment of the masses of the people. So the new patriotism calls to you and to me, to all of us, not to make an extra dollar, more that we are entitled to, in addition to what we already have, but to protect the dollars we have already made, because we are American citizens, and the permanence and stability of this country, the existence of its institutions rest upon your shoulders."

An event of interest to the Canadian members who were present at the meeting then took place, when the president called upon Mr. Gordon C. Edwards of Ottawa for a few words. On behalf of the National Wholesale Lumber Dealers' Association of which Mr. Edwards was recently elected president, he thanked the National Hardwood Association for their invitation to attend the Convention. The National wholesalers were greatly pleased he said at the progress made by the National Hardwood Association.

The Committee on Resolutions presented a number of resolutions which were adopted. One resolution which they had considered, but not adopted, was embodied in their report for the consideration of the Board of Directors. This resolution recommended that a school of instruction for hardwood lumber inspectors should be established at the headquarters of the Association; that an assistant chief of inspectors should be appointed to be in charge of the school of instruction and that he should examine all inspectors, permitting only those who were able to inspect within 2 per cent of the recorded inspection of the Board, to perform any Association work.

After a discussion on this resolution a motion was carried referring it to the executive committee.

The report of the inspection rules committee was presented by Mr. W. E. Chamberlin, chairman. This report referred briefly to the importance of the work done by the inspection department and concluded with recommendations for two additions to the rules.

The first addition was as follows:—

Plain sawn flitch lumber shall be graded according to the generai rule applying to the kind of lumber inspected, with the exception that it must be measured on the narrow or sap side in the centre of the piece between the wane or bark, and graded into any of the grades of No. 3 common and better, to which its quality entitles it. There is no restriction to heart in the grades of common. This rule does not apply to veneer flitches.

The second addition was as follows:—

Wormy beech shall be graded according to the rule for beech No. 2 common and better, with the exception that pin worm holes shall not be considered a defect.

The report was received and a motion was carried to the effect that the recommendations contained in it should be adopted.

The election of officers resulted as follows:—

President, E. V. Babcock, Pittsburgh, Pa.; first vice-president, J. V. Stimson, Huntingburg, Ind.; second vice-president, Hugh McLean, Buffalo, N.Y.; third vice-president, Fred L. Brown, Chicago. The following directors were elected for a term of three years each:—Edward Buckley, Manistee, Mich.; J. L. Kendall, Crellin, Md.; W. E. Chamberlin, Boston, Mass.; Chas. H. Barnaby, Greencastle, Ind.; W. J. Hetherington, Toronto, Ont.; Alex Schmitt, Cincinnati, O.; and M. J. Quinlan, Saperton, Wis.

The Canadian delegation present at the convention included the following:—A. E. Clark and R. L. Clark, Edward Clark & Sons, Toronto; Gordon C. Edwards, Ottawa; Guy Long and J. M. Donovan, Long Lumber Company, Hamilton; W. Gall, Toronto; W. J. Hetherington, Laking Lumber Company, Toronto; Robert Vestal and J. W. Jacobson, Atlantic Lumber Company, Toronto; J. E. Chamberlain, Toronto; Geo. Kinnon, Laking Lumber Company, Toronto; John A. McBean, McBean & Verrall, Toronto; A. J. DeLaplante, Daniel Ferguson, London, and Mr. J. J. Miller, Inspector for the National Hardwood Lumber Association at Toronto.

On Friday evening, June 19th, a complimentary banquet was given to the members by the Association and by the Buffalo Lumber Exchange, in the banquet hall of the Hotel Statler.

The Smart Turner Machine Company, Limited, Hamilton, Ont., are supplying the Imperial Oil Company, Sarnia, Ont., with one of their Vertical Triplex Pumps.

Three Types of Business Management

Second of Series of Three Articles Analyzing The Composition of the Manager's Policy—The Systematic Type

By E. St. Elmo Lewis*

SYSTEM is the rut in which some men are proud to live. It is the rut in which the thoughtless run without fear of serious catastrophe. System at its worst, affords the incompetent and indifferent a nice comfortable, easy way of doing things. They progress along the road that has already been marked for them, beaten down and road-rollered by the hundreds of feet of men who have gone before. Automatically, every New Year's Day, salaries are increased a few dollars a week, to the "soldier" as well as the worker. Automatically each one is checked up. If each has followed the system, he is ignored, but if he hasn't, he is called down. Each has learned a set, prescribed way of going through his work until, as the youngster said, "he could play the piano with his eyes shut." Under a systematic management a man doesn't have to think, but he does something and remembers! A great many go through their work just as they eat their meals. They eat them whether they want them or not. So they do their work whether it is useful or not.

When an Efficiency Commission investigated the Government Department at Washington, it found that government workers were making copies of original documents laboriously by hand. By the introduction of a photographic process of making these copies, a 75 per cent. saving of clerical time and 90 per cent. in cost was effected. $242,000 a year was saved in the handling of public documents. It was estimated that another $850,000 could be saved annually if the departments would properly standardize the handling and filing of correspondence.

Lack of Department Co-operation

The same discovery applies to the majority of business houses. Each department stands alone. To all intents it is separate business. This department files correspondence one way, this one has another, that one still another. If four or five departments have correspondence with the same customer, or prospect, even about the same thing, it is only rarely that the complete correspondence can be brought together without a very great deal of difficulty and trial. Why? Is it not because the management does not see the business as a whole, however thorough may be its grasp of details?

The systematic type of manager is a decided improvement on the rule-of-thumb type. The systematic type recognizes that there are some better methods of geting information about what is going on. He aims to find what is a good way to do things by comparing the results of the good, bad, and indifferent methods of the past. He is making the first step toward finding out the facts about his business The systematic type of manager has one drawback which is so common as to be almost universal—he is still thinking about things and not about people. To him a system is a chart of accounts, or a bunch of cards, or a vertical file, or a loose-leaf ledger with its accompaniment of books and forms and ideas about their handling, but still it leaves out the human element. He continues to believe that the man element is the uncertain, the unsystematic, the untrainable element. He does not think about men—how to train them—but he simply forces them into the grooves of handling a thing in a so-called systematic fashion. He makes them what he thinks they are—automatons.

System is, on the contrary a machine means to a humanizing end. Its primary purpose is to raise efficiency, and a system that doesn't raise efficiency is fallible, weak, impotent, in the way and a nuisance. The purpose of system is—

1. To keep a true record of what has actually happened.
2. To keep this record in such terms that the manager may readily translate it into the most productive action.
3. To insure a reliable, immediate, and accurate record, in order that the manager may determine standards relative to the practice of work, and the conditions surrounding the work, and the operation and their sequence, and fix an adequate reward for the best work.

Caught in the System Net

In the highly systematized type of management the man gets caught in the net of a pre-determined method of following the work, and can make no change from it, without dislocating the whole business routine. How often have you heard when you go into a retail store and you ask them to do something—"Well, we have never done it that way?" I once made a purchase of some hundred odd dollars in a jewelry store and asked them to deliver the purchase to a steamer. The clerk said that "The delivery doesn't go out until three o'clock." I had to have it delivered at two. In his routine way of thinking it never occurred to the clerk that he could have a special messenger

* Advertising Manager of the Burroughs Adding Machine Co.

do the delivering and even the head salesman had to "see if it could be done."

Mr. Harrington Emerson tells the story of a systematic government official. When he was living in Germany, there were only four official religions—Reformed, Lutheran, Catholic and Jewish. When Mr. Emerson was filling out the census blank for his father's family, he told the census official he wasn't a member of any of these four faiths, but he was told that he had to choose one of them or else be fined. Of course he chose!

In a business with which I was at one time connected there was a certain chart of accounts arranged, and you had to select which of these accounts a disbursement was to be charged to. New conditions arose, but the chart of accounts remained the same. Items, for instance, such as were used for the development of the sales organization were charged to advertising accounts, and the management of the company, therefore, got an entirely erroneous idea of the amount of money it was spending for advertising. Nearly a sixth of the amount of money charged to the advertising accounts never even remotely affected the state of mind of the prospective purchaser. The consequence was that the chart of accounts ran the business, and not the business the chart of accounts.

Worshipping Precedent

The systematic type of mind constantly falls back for precedent—it is traditional. Mr. H. G. Wells, in his thought-provoking book, "The Discovery of the Future," hits off this type of mind remarkably well.

"The Systematic type of mind—one might speak of as the legal or submissive type of mind, because the business, the practice, and the training of a lawyer disposes him toward it; he of all men must adhere constantly to the law made, the right established, the precedent set, and consistently ignore or condemn the thing that is only seeking to establish itself."

"The efficient type of mind I might for contrast call the legislative, organizing, or masterful type, because it is perpetually attacking and altering the established order of things, perpetually falling away from respect for what the past has given us. It sees the world as one great workshop and the present is no more than material for the future, for the thing that is yet destined to be. It is in the active mood of thought, while the former is in the passive; it is the mind of youth, it is the mind more manifest among the western nations, while the former is the mind of age, the mind of the 'Oriental.'"

Now, the important thing in management is to realize that we need the strenuous, we need the systematic, and we need the efficient. We need strenuosity to help fix quantity standards, because when the strenuous man is properly guided and handled, he gets a maximum quantity efficiency. But he must be guided.

The systematic type furnishes those reliable records by which we keep track of the efficiency, find it out and establish its standards. But left to himself without guidance, the systematic type of man runs to seed. He becomes petrified in the attitude of changeless superiority. It is only the efficient man that can be left alone, because he will not leave anything alone.

The systematic man, of course, is the stand-pat and conservative mind at work. He prefers to write history rather than prophecy. His mind is set towards the setting instead of the rising sun. He compares today's result with yesterday's result, instead of comparing it with the ideal standard of tomorrow.

The systematic manager inevitably curtails initiative in the plant, for he sets wage limits instead of work limits. He is not concerned about the value so much as he is concerned with the price.

Efficiency Involves Ideals

The efficient man is after what we shall do to be perfect. The systematic man is content if he has properly taken care of today in comparison with yesterday. The efficient man is principally concerned in seeing that tomorrow is taken care of in order that today will automatically be looked after.

Place the systematic man in charge of your cost work. He is perfectly content if he can devise a system that will attach a string to every dollar, with the consequence that in the hands of the small systematic men, a cost system rarely gives costs, though it produces a lot of figures.

The great fallacy in costs, as some of the efficiency experts have pointed out, is to generalize from the whole to a part, to apply data covering a ten-year period to a lesser period, down to a day. Averages are the pitfalls of the system-mad cost accountant. "The average temperature, or rainfall, ought not to be taken as the weather indication for an outing," is the witty way Mr. Emerson has put this failing.

Mr. Emerson in his book brings out one very important item by a very vivid comparison. There is a difference between expense and cost. If a salesman on the road paid 25 cents for a cigar with a hundred dollar bill and neglected to get the change, the trip cost you $100, but the expense was only 25 cents for the cigar. The systematic cost man wants only to know what becomes of the money, the material and the work, where it has gone. The efficient man wants to know what you have gotten for the money, and vitally important. if that you received in return for the money is worth the price. We have crude so-called cost systems which do not reflect the activities of a business at all. Merely because a man is systematic, merely because he has a system, is no indication that the system is telling him any usable facts about his business.

Cost Systems, Scientific and Otherwise

It is important therefore, in the establishment of a cost system to pre-determine what you want it to do.

You can't let a cost system just grow.

If you do let it grow, it will grow in many ways that will be expensive and bristling with misinformation pitfalls for your unwary judgment. Put in a cost system by all means. Bring to bear upon the problem the same concrete information, skill, experience and attention to scientific detail you would in making an installation of an electric power plant, or a transmission system.

As a matter of fact, what do you know about the matter of costs? What do you want a cost system to tell you? If you want to have a cost system to help produce a greater efficiency, then you want it to aid in a real managerial function. If you want it merely as a supplementary historical record to be tied into your accounts, then a mere cost system will do.

But make no mistake, that kind of a cost system will give precious little aid in raising the efficiency of management.

The cost system that doesn't tie up with production standards; that doesn't show how closely you have come to realizing the best way of doing anything; in other words, that doesn't give values as well as costs, is a misnomer, and one that is destined to breed narrow, cribbed and inefficient management. Therefore, any cost system should be, as Mr. Emerson points out, so arranged that it gives:

1. To the comptroller information that will show him where the money goes.

2. To the efficiency engineer information to show him whether standards are being realized.

3. To the manager, information to show him where his losses are occurring and his highest efficiencies are being realized.

In order to do this Mr. Emerson continues: "The requisition system must be increased. You apply requisitions to materials—why shouldn't you apply them to personal services and other charges?"

The Proper Care of Belts

By J. H. Walker, Gen. Mgr. Dominion Belting Co., Hamilton

There are very few users of belts who give them the proper care. In the first place, they should be put on with clamps, or other means adopted, to take all the stretch possible out before lacing or attaching with other fasteners.

Every belt should have a proper dressing applied occasionally to keep it in condition. By this means drying out is prevented, and belts retain their gripping qualities on pulleys, which means a retention of the original power transmission.

A belt dressing containing resin or mineral oils should not be used, as these ingredients are most detrimental. Never use a belt dressing containing animal oils on rubber, balata, or stitched cotton duck belting.

The proper time to apply belt dressing is when the plant is closed down for a day or so; for instance, Saturday, as by Monday morning it has had a chance to penetrate the belt and keep it soft and pliable.

If kept in this condition there is no excuse for anyone resorting to the questionable remedy of applying resin, or any sticky dressing to get the proper power out of belts.

Belts used in saw mills and other plants that are shut down during the winter months should be taken off, rolled up, and kept in a warm place. If left on the pulleys and exposed to the changeable atmospheric conditions of a Canadian winter they will certainly have deteriorated by the spring.

Carlessness in starting up machinery too quickly is liable to cause belts to slip on pulleys, thus injuring them. This can be obviated by putting on the power gradually, which gives belts a chance to get a grip on the pulleys.

Another important matter is to have proper alignment of pulleys, as many belts give out before their time owing to defects in this respect.

Another mistake made by some belting users is practising false economy in getting belts too light for the work they have to do. While a certain weight of belt may at first do the work required, if it is necessary to keep it on a constant strain to accomplish this, both belt and machinery are going to wear out much faster than if there is a "reserve." In other words, heavy enough belts should be used to insure their not being overstrained. This may cost a little more at first, but pays in the long run.

Grading Timber on the Strength Basis

Important Innovation Introduced by Yellow Pine Manufacturers To Establish a Satisfactory Means of Determining Grades

By A. T. North*

Heretofore the grading of timber has been confined to establishing the maximum permissible defects for each grade. There is a demand at present that timber be graded primarily on a basis of strength quality and that secondary consideration be given to the effect of defects and the permissible amount of the same. Timber is divided into groups by arbitrary lines of division and this is necessary because, as with all natural products, the material is not uniform. Therefore each grade is based on a minimum strength quality with a maximum of defects. This lack of uniformity in the material makes it necessary to have several grades for the same kind of timber.

The woods commercially available for structural use are confined to the conifers and of these the southern yellow pines furnish the bulk of the timber cut, with Douglas fir and the softer northern pines secondary in the order given.

Investigators of the mechanical properties of coniferous woods agree on the following laws which are quoted from the Forest Service bulletin No. 108.

"(1) The mechanical properties of timber beams are dependent upon (a) the quality of the wood irrespective of defects; (b) the character and location of defects.

"(2) The mechanical properties of wood free from defects vary directly with its dry weight. The relative dry weight of the different pieces of wood of any species can be approximated by comparing the proportion of summerwood in each.

"(3) The only defects which materially decrease the breaking strength of timber beams are the more serious ones, such as large knots and cross grains occurring where fibres are subjected to comparatively high stress.

"(4) All the species tested seem to be subject to the same general laws regarding the relation of mechanical to physical properties."

The grade of timber must of necessity be determined by visual inspection, owing to the lack of uniformity of the material. The cost of making an exact determination of the dry weight of each piece would be prohibitive, as it would be if each and every bag of cement were tested. Cement, being a mechanical product, is uniform and visual inspection is of no value. In timber we can see the physical characteristics and the defects, and easily determine the soundness of the material.

It is the heavy dry weight which makes the southern yellow pine the strongest of the coniferous woods and its high percentage of resinous content makes it the most desirable of the strong woods. For this reason it is the standard with which all other woods are compared.

The best known species of southern yellow pine are the loblolly, shortleaf and lonfleaf pines. The Cuban pine is not much known, as such, it being commonly grouped with the longleaf pines. It grows along the Gulf coast and owing to the soil and climatic conditions it has larger annular rings than the longleaf and is stronger as shown by circular No. 12, division of forestry.

The illustrations showing the range of the physical characteristics of the first three species mentioned are made from photographs furnished by the Forest Products Laboratory at Madison, Wis.

Loblolly Pine

Figure 1.—This specimen is the weakest grade, due to its having very wide rings and to the very small percentage of summerwood.

Figure 3.—This is an ordinary quality owing to the low percentage of summerwood and the wide rings.

Shortleaf Pine

Figure 4.—This is an illustration of the variation in this species, the specimen at the left having an average of eight rings per inch, with about 20 per cent of summerwood, and the other having an average of thirteen rings per inch with probably 50 per cent of summerwood.

Figures 5 and 6 also show the variation in this species.

Longleaf Pine

Figure 7.—These are very typical specimens of this species, close ringed with a large percentage of summerwood. The eccentricity of the heart centre is notable. J. W. Martin, of Ludington, La., states that this condition is found in trees that are inclined and that the longer radius and the larger roots are always on the upper side of the tree with reference to its inclination. Here is also shown the very small percentage of sapwood characteristic of this variety. The preceding statement concerning season checks is here verified.

Figure 8.—Referring to Figures, 2, 5 and 6 in connection with this figure, it is apparent why the counting of rings should be started at some distance from the heart centre, the scale in this case starting 2¼ inches from that point. This specimen would run probably 20 per cent of summerwood with an average of 12 rings per inch.

Figure 9 is a specimen showing regularity of ring widths, with unevenness of summerwood, owing to climatic conditions.

Figure 10 shows an unevenness of ring widths with a very large proportion of summerwood, ranging from 50 to 75 per cent.

These few illustrations will demonstrate the impossibility of determining the botanical variety of these woods after they are manufactured into timbers. Microscopic examination also fails in this regard.

In 1909, Committee Q of the American Society for Testing Materials presented a progress report on a method of determining the botanical species based on the average number of rings per inch measured over at least 5 inches across the face of the stick. This committee recommended that wood having 15 rings or more per inch be considered longleaf pine; 8 to 15 rings per inch shortleaf pine; any timber having less than an average of 8 rings per inch shall be considered so porous that it is unfit for structural purposes. This finding was based on measuring a large number of trees but not on a sufficiently wide

*An address delivered recently before the Western Society of Engineers, reproduced by courtesy of the Lumber World Review, of Chicago. Readers should bear in mind that this address was delivered before a United States Association and make allowance for a few comparative references to Douglas fir, etc., with which they may not be inclined to agree.

Fig. 1—Loblolly Pine of the weakest grade, showing the wide rings and small percentage of summer wood.

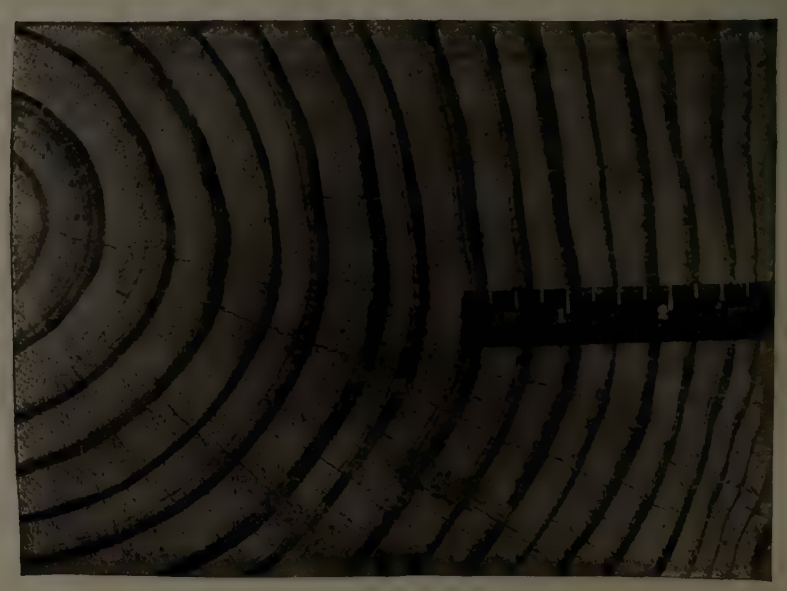


Fig. 3.—Loblolly Pine of the ordinary quality owing to the low percentage of summer wood and the wide rings.

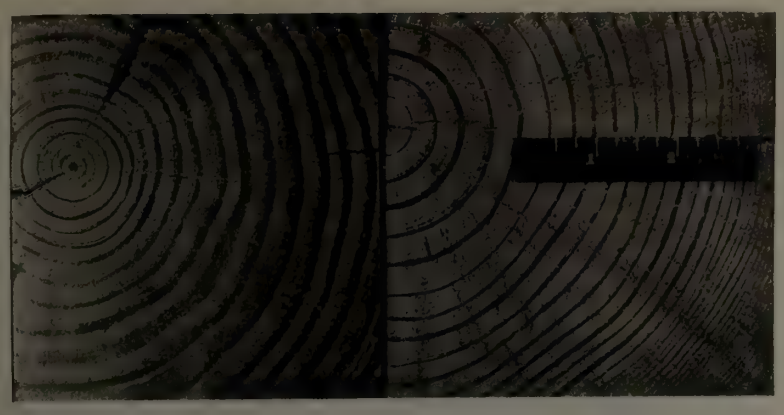


Fig 2—Loblolly Pine showing other specimens of the wide ring variety.

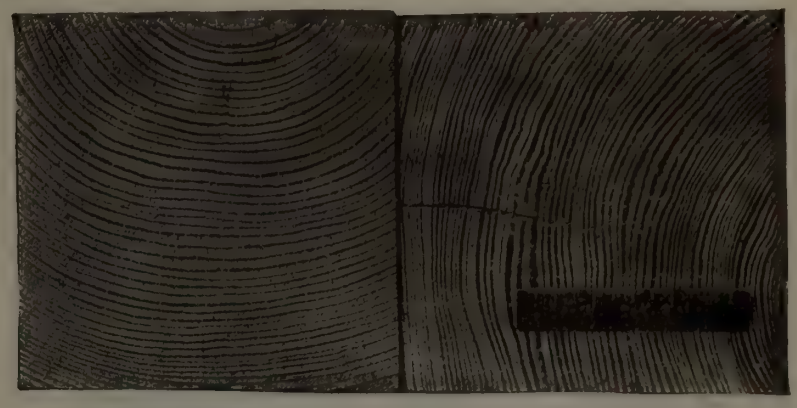


Fig. 4—Shortleaf Pine, showing the variation in the species.

range of soil and climatic conditions to be of value. (See report of the twelfth annual meeting, 1909, American Society for Testing Materials.) Climatic and soil conditions have a very important effect on the annual growth of the trees and a longleaf pine grown in southern Louisiana will look very different from one grown on the hills of central Alabama. It is apparent that this scheme of determining botanical species is not practical. The American Society for Testing Materials has never voted on or adopted any recommendation appertaining to this matter, although such an opinion prevails.

The number of rings per inch, with no other qualification, is not indicative of anything other than the mere fact that this number exists. It serves, however, when considered in connection with the percentage of summerwood, as an index of the dry weight of the timber which has a direct relation to its strength quality.

That there is an appreciable overlapping of the species is shown in Circular 15, division of forestry, wherein it appears that "the average highest 10 per cent of tests" on shortleaf and loblolly pine exceeded the average of all tests on longleaf pine by 14 per cent. This would show that a strict botanical classification would exclude much of the better grade of shortleaf pine which is superior to the "average lowest 10 per cent of tests" on longleaf pine.

The next public appearance of the rings per inch scheme is in Bulletin No. 108, Forest Service, issued September 23, 1912, which was preceded by Circular No. 189 in form of an advance report. From page 11, under topical heading of "southern yellow pine," is quoted: "The term 'southern yellow pine' is applied collectively to practically all of the pines of the southern states which are manufactured into lumber. On the market the manufactured lumber is divided into two classes, longleaf and shortleaf. Material with more than 8 or 10 rings per inch, and containing a comparatively large amount of summerwood and less than 30 per cent of sapwood, is called longleaf pine; while material with fewer than 10 rings per inch, slow-growing material that is light in weight and which contains much sapwood, is called shortleaf pine. Commercially, therefore, the terms 'longleaf' and 'shortleaf' are descriptive of quantity and have little botanical significance." This paragraph has a footnote reading: "See 'standard specifications for structural timbers,' American Society for Testing Materials." This is a very misleading statement. The "standard classification of structural timber, adopted September 1, 1907, reads: 'Southern Yellow Pine.'—Under this heading two classes of timbers are used, (a) longleaf pine, (b) shortleaf pine. It is understood that these two terms are descriptive of quality, rather than of botanical species. Thus, shortleaf pine would cover such species as are now known as North Carolina pine, loblolly pine and shortleaf pine. 'Longleaf pine' is descriptive of quality, and if Cuban, shortleaf or loblolly pine is grown under such conditions that it produces a large percentage of hard summerwood; so as to be equivalent to the wood produced by the true longleaf, it would be covered by the term 'longleaf pine.'" There is no mention of "rings per inch" but it accepts the best grades of the shortleaf, Cuban and loblolly pines as equal to the longleaf variety.

The quotation from Bulletin No. 108, above referred to, gave birth to a large number of specifications promulgated by various persons, corporations and proposed building codes. To an engineer the words "comparative" or "comparatively large amount of hard summerwood" appear ridiculous when applied to a quantity that can be measured by volume, weight or otherwise, and such a phrase incorporated in a specification or building code would only result in disputes and litigation.

On page 60 of this same bulletin is found a tentative grading rule consisting of a set of definitions and rules which can be applied to the grading of structural timbers cut from any of the species discussed in that bulletin, these species being: longleaf pine, shortleaf pine, loblolly pine, Douglas fir, western larch, tamarack, western hemlock, redwood, Norway pine, red spruce and white spruce. It will be noted that the Forest Service proposes to apply a ring rule to all of the woods above mentioned, but this idea is not yet generally accepted.

This tentative grading rule, considered aside from the permissible defects, is based on a definition of "dense wood" which is required in both grades. This quality, dense wood, is defined as:

1.—Wood that shows more than eight rings per inch, or the rings of which contain more than 30 per cent of summerwood.

2.—Wood which is resilient; that is, which when struck with a hammer or similar blunt instrument, gives a sharp, clear sound, while the hammer shows a marked tendency to rebound and the wood to recover from the effects of the blow.

These properties are to be judged from an inspection of the cross section of the timber.

Without discussing the permissible defects in these grades, it can be said that these rules are the first to define the location of defects. For this purpose the timber is divided into three volumes or zones. What is termed volume 1 is the lower quarter of the middle half, or the zone affected by tension; volume 2 is the upper quarter of the middle half, or the zone affected by compression; volume 3 is the balance of the stick, or the zone containing the neutral axis and affected by horizontal shear, compression perpendicular to the grain at ends and vertical shear. The consideration given to the location of defects in this rule is a notable advance in the formulating of such rules.

A recent purchase of yellow pine timbers for the Panama Canal was based on the following rule:

Quality No. 1: In large dimension or timbers there must show on the cross section at least six annual growth rings between the third

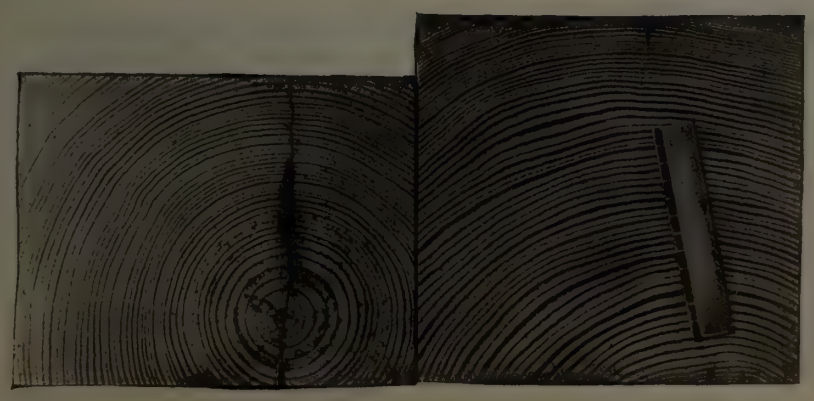


Fig. 5—Shortleaf Pine, showing further variations of species.

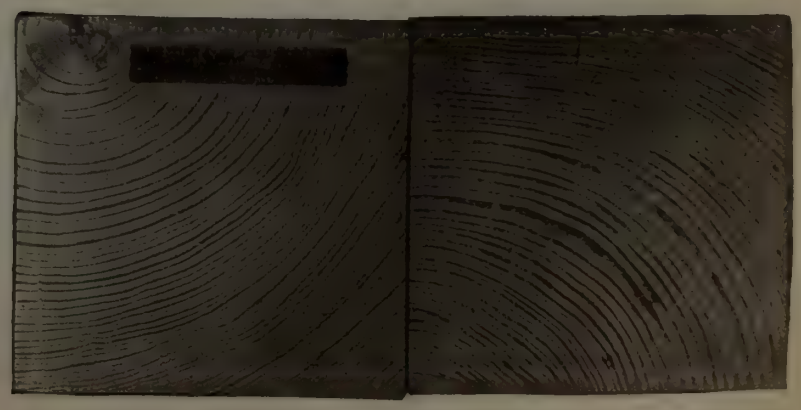


Fig. 6—Shortleaf Pine, showing further variations of species.

Fig. 7—Longleaf Pine; typical specimens, with close rings and a large percentage of summerwood.

Fig. 8—Longleaf Pine; this specimen would run about twenty percent of summerwood.

and fourth inch measured from the heart centre or pith; however, wide ringed material will be acceptable provided that in the greater number of the annual rings the dark ring is hard and in width equal to or greater than the adjacent light colored ring.

In small dimension material (up to 4 x 6's) where strength and durability are the prime considerations, there must be an average of six rings per inch over the entire cross section of the piece.

Quality No. 2: Yellow pine not meeting above specifications.

This rule was devised by O. T. Swan, in charge of industrial investigation, Forest Service, Washington, D.C. Concerning this rule, Mr. Swan states that it originated in a dispute between the Panama Canal inspectors and contractors over a cargo of longleaf pine sold under the Gulf Coast rules. There was a decidedly wide range in the quality of the material delivered and to settle the dispute the Forest Service was called in. By applying the rule above given, the matter was handled to the satisfaction of both parties. Later the rule was tried out in company with inspectors of the Pennsylvania railroad and the Boston Elevated railroad upon material on the different docks and was found to classify material in a way satisfactory for their purposes. Botanists connected with the Forest Service later made further investigations in the woods to afford an additional check on the rule.

The latest development in these matters was the adoption of a rule by the classification committee of structural material of the Yellow Pine Manufacturers' Association on May 4. The board of directors of this association approved the rule and it will be tentative until passed on by the association at its semi-annual convention in July.

There are two grades provided for and called "select structural" and "No. 1 structural."

Select Structural Grade: All timber shall be sound and sawed to standard sizes, dense, free from such defects as ring shake showing on the faces, injurious cross grain, unsound knots and decay.

Stringer forms must not have encased or large sound knots in volume 1; must not have large encased knots in volume 2, or unsound knots in volume 3. Beam, post, sill and other forms may have sound knots or hard, firm encased knots, the aggregate diameter of which does not exceed the width of the face they are in; but no one knot shall exceed 4 inches in diameter; stringer forms shall show three-quarter heart at any point on the narrow faces and post; beam and sill and other forms more nearly square shall show three-quarter heart on ali faces at any point.

The measurement of knots shall be at right angles with the grain of the knot.

No. 1 Structural: Shall include timber answering in all respects to select structural, except that a greater proportion of sap or no restriction as to sap will be allowed, making timbers suitable for treatment and distinguishing them from No. 1 common timber.

In the above rule dense wood is defined as follows: Having the following characteristics showing on the cross-section and appearing in the third, fourth and fifth inches of a radial line from the pith or heart centre; an average of six or seven rings, provided that in the greater number of rings one-fourth or more of the ring is summerwood; an average of six or seven rings, provided that in the greater number of the rings one-third or more of the ring is summerwood; or wider ringed material if in the greater number of rings one-half or more of the ring is summerwood; must show a sharp contrast in color between springwood and summerwood.

It is believed that this rule will supply the proper proportion of summerwood in the various combinations given to give a uniformly strong and durable wood. It is essential that the summerwood be dark in color showing a strong contrast with the springwood. In specimens where the summerwood is light in color it is found to be light in weight and consequently lacking in strength.

The increasing of the proportion of the summerwood in the wider ringed material is made necessary by the fact that this quicker growth material is generally more brittle and less strong than the closer ringed material.

This rule combines the inclusion of the wide ringed material as incorporated in the specification for the Panama Canal timbers and the location of defects as included in the tentative rule given in Bulletin No. 108.

This is the first rule promulgated by an association of producers which attempts to grade structural timbers for building purposes on a basis of strength quality, and is also the first rule that defines the location of defects in a scientific manner.

The classification committee of structural material of the Yellow Pine Manufacturers' Association consists of M. B. Nelson, chairman; I. H. Fetty, C. E. Slagle, W. J. Haynen, J. H. Eddy and J. W. Martin. They had the earnest and active assistance of Geo. K. Smith, secretary of the association; John A. Newlin, engineer in charge of timber tests, Forest Products Laboratory, Madison, Wis.; O. T. Swan, in charge of industrial investigation, Forest Service, Washington, D.C., and the writer. It represents the combined offerings of the practical woodsman, the lumber producer, the scientific investigator and the engineer.

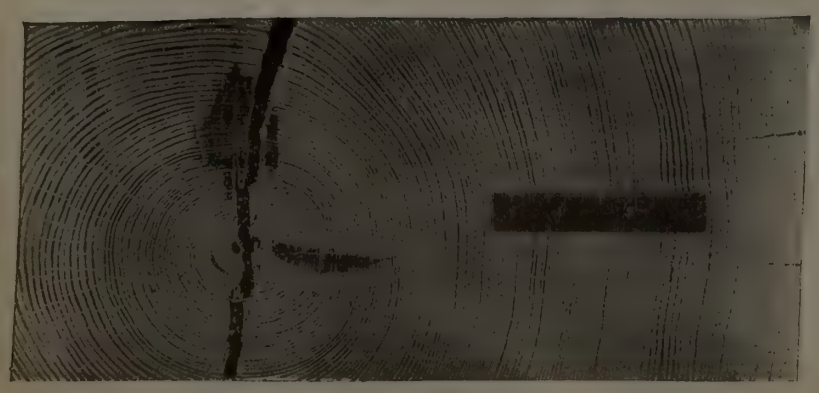


Fig. 9—Longleaf Pine; a specimen showing a regularity of ring widths.

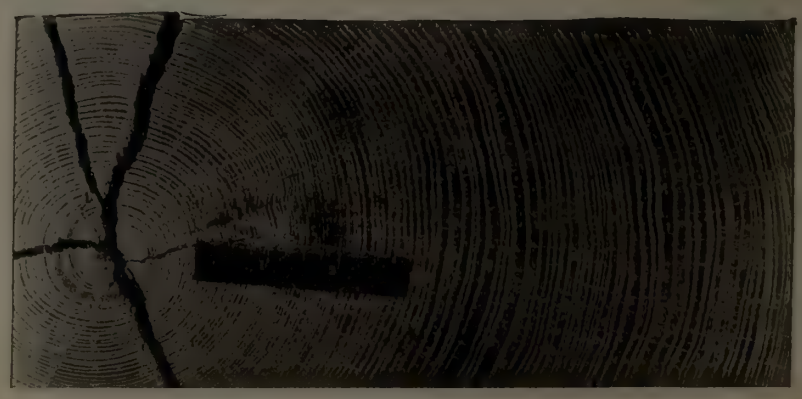


Fig. 10—Longleaf Pine; a specimen showing an unevenness of ring widths.

Production and Use of Pulpwood

Statistics for the Year 1913 and 1912 Prepared by Forestry Branch of Department of Interior

A bulletin dealing with the consumption of pulpwood in Canada during the year 1913 will be published in the near future by the Forestry Branch of the Department of the Interior. This bulletin is based on reports received from 48 firms operating pulp mills in Canada. Altogether 65 mills were operated by these firms as follows:—Quebec, 26 firms operating 34 mills; Ontario, 12 firms operating 17 mills; Nova Scotia, 4 firms operating 6 mills; New Brunswick, 4 firms operating 4 mills; and British Columbia, 2 firms operating 3 mills. In addition to these active firms reports were received from 10 firms whose mills were idle in 1913, and from 5 firms with mills under construction.

The 48 active firms reporting in 1913 consumed in their mills a total of 1,109,034 cords pulpwood valued at the mill at $7,243,368. A total of 1,035,030 cords of unmanufactured pulpwood valued at $7,070,571 was exported from Canada to the United States during the same year, bringing the total production of pulpwood to 2,144,064 cords valued at $14,313,939.

The quantity of pulpwood consumed in Canadian pulp mills in 1913 was an increase of 28.1 per cent over that of 1912. The average price of raw pulpwood at the mill increased by 51 cents a cord, making an increase of 38.9 per cent in the total value of the raw material used in this industry.

Quebec and Ontario still led the other provinces in 1913, as in 1912. British Columbia displaced Nova Scotia from fourth place on the list in 1912 and displaced New Brunswick from third place in 1913. This province now consumes 7.6 per cent of the pulpwood used in Canada and will probably increase this proportion in the future as the pulp industry on the Pacific Coast is still in its infancy. There was an increase in consumption in every province but Nova Scotia where the closing of four mills resulted in a decrease of 21.4 per cent. The increases were:—Quebec, 8.8 per cent; Ontario, 84.7 per cent; British Columbia, 140 per cent; New Brunswick, 2.1 per cent.

The average cost of pulpwood at the mill in Canada in 1913 was $6.53, an increase of 8.5 per cent from 1912. The cost increased in Quebec, Ontario, New Brunswick and Nova Scotia, and decreased in British Columbia.

Varieties of Wood Used

Only five kinds of wood were used in the manufacture of pulp in 1913. Spruce headed the list with over two-thirds of the total. The percentage of balsam fir used in pulp making has increased steadily as the prejudice against this wood have been overcome. In 1911 balsam formed 17.5 per cent of the total; in 1912, 19.0 per cent; and in 1913, 25.5 per cent. The wood has been found to make excellent pulp, equal in many cases to that made from spruce alone, but a prejudice existed against its use.

The manufacture of ground wood pulp still consumed over half (54.1 per cent) of the wood used for pulp making in Canada. This percentage has been decreasing in the last few years. The sulphite process, the most important of the chemical processes, was used in converting a third of the total quantity of wood into pulp in 1913. This proportion is practically the same as in 1912.

The increased manufacture of Kraft papers has caused an increased demand for pulp made by the sulphite process. This process was used with 12.3 per cent of the pulpwood in 1913, as compared to 7.7 per cent in 1912. The manufacture of soda pulp has greatly decreased, only 5,144 cords of wood being used for this process.

The active firms reporting pulp manufacture in 1913 each used on an average 23,105 cords of wood as compared to 18,042 in 1912. Each one of the individual 65 mills consumed an average of 17,062 cords of pulpwood. The largest individual mills are situated in British Columbia where the average mill consumption was 28,058 cords. Quebec has the greatest number of mills, and the average consumption of these was 18,527 cords. The average mill consumption in the other provinces was as follows:—Ontario, 18,897 cords; New Brunswick, 13,280 cords; and Nova Scotia, 5,140 cords.

So many conditions affect the average price of pulpwood that the figures cannot be taken too literally. Some mills purchase pulpwood on the open market and pay high prices for it plus the cost of transportation. Other firms own their limits and pay only the cost of cutting and transporting the material. The prices however, can be depended upon to indicate any important change from year to year.

In 1912 Canada manufactured 46.9 per cent of her pulpwood in her own mills. In 1913 this percentage increased to 51.7 per cent, and for the first time in the history of the industry more than half of the pulpwood produced in Canada was manufactured into pulp in Canadian pulp mills.

During 1913 each province, except Nova Scotia, used an increased proportion of its pulpwood for home manufacture. The greatly increased production of pulpwood in British Columbia together with the fact that this province manufactures practically all (99.9 per cent) of its pulpwood at home, is largely responsible for the increased proportion for the whole of Canada.

Effect of Prohibition of Export

Laws exist in Ontario whose strict enforcement has checked the export of raw pulpwood. In this province 79.1 per cent of the pulpwood is used in home manufacture. The exports of raw pulpwood have increased in Nova Scotia from 0.3 per cent in 1911 to 22.7 per cent in 1913. Laws prohibiting the export of raw pulpwood from Crown Lands in Quebec came into force in September 1, 1910. Since that time the export for the province has decreased steadily from 69.4 per cent in 1910 to 62.0 per cent in 1911, 56.5 per cent in 1912, and 56.0 per cent in 1913. This proportion probably represents approximately the proportion of pulpwood cut on Crown Lands and privately owned limits, and may remain stable for some time. In New Brunswick the restrictive legislation of October 1st, 1911, checked the export of raw material, and in 1913 a slight increase in the proportion of pulpwood consumed in the province is to be noted. This province still exports a greater proportion of its pulpwood in the raw state than any other.

Canada exported in 1913 to the United States 1,035,030 cords of unmanufactured pulpwood valued at $7,070,571 or at $6.83 a cord. Canadian pulp manufacturers operated 65 mills in that year. If the exported material had been manufactured into pulp in Canada it would have been sufficient to supply 60 mills each consuming 17,062 cords of pulpwood, the average consumption of Canada's 65 mills in 1913.

Canadian pulp mill operators paid an average price of $6.53 per cord for their raw material. The exporters received only 20 cents a cord more than this for the wood sent to the United States.

This 1,035,030 cords of pulpwood, if manufactured into pulp would have made 1,035,030 tons of ground wood, or 517,515 tons of chemical fibre. Groundwood pulp is worth at least $14 a ton, which would give $14,490,420 as the value of the pulp made from the wood exported in 1913. Had this wood been made into chemical fibre at an average price of $38 a ton its value would have been $19,665,570. In reality only $7,070,571 was received for this wood. The pulp industry lost the profit which could have been made by manufacturing this wood into pulp, and the country at large, lost the money which would have represented the cost of manufacture in the form of wages, etc.

Decreased Export of Wood Pulp

The export of wood pulp from Canada decreased from 1912 to 1913 by 22.4 per cent in spite of an increase of 25.2 per cent in the quantity manufactured. This would seem to indicate increased activity in the domestic manufacture of paper. Decreases are to be noted in the exports of pulp to the United States, Great Britain and China. New Zealand did not import Canadian pulp in 1913. The only increase reported was in the export of chemical pulp to Japan. The United States still takes about two-thirds of our pulp, of which about 70 per cent is groundwood.

The imports of wood-pulp into Canada in 1913 were valued at $356,862, as compared with $172,797 for 1912. This is an increase of over 100 per cent, the imports from the United States having more than tripled during 1913. The importation from Great Britain more than doubled and those from Germany increased by over half those in 1912.

The following table shows the quantity and value of pulpwood cut in the provinces of Canada during 1912 and 1913.

	No. of Active Firms	Quantity 1912 Cords M ft. B. M.	Quantity 1913 Cords M ft. B. M.	Per cent distribution 1913	Total value 1913 $	Average value Per M ft B. M. 1912 $ c.	Average value Per M ft B. M. 1913 $ c.
Canada	48	866,042	1,109,034	100.0	7,243,368	6.02	6.53
Quebec	26	578,855	629,934	56.8	4,107,689	5.85	6.52
Ontario	12	173,903	321,244	29.0	2,297,389	7.10	7.15
British Columbia	2	35,067	84,173	7.6	401,218	5.51	4.77
New Brunswick	4	52,041	53,121	4.8	342,243	5.52	6.44
Nova Scotia	4	26,176	20,562	1.8	94,829	4.32	4.61

The following table shows the pulpwood cut in 1912 and 1913 according to the kinds of wood.

	Quantity 1912 Cords M ft. B. M.	Quantity 1913 Cords M ft. B. M.	Per cent distribution 1913	Total value 1913 $	Average value Per M ft. B. M. 1912 $ c.	Average value Per M ft. B. M. 1913 $ c.
Total	866,042	1,109,034	100.0	7,243,368	6.02	6.53
Spruce	677,747	754,858	68.1	5,104,221	6.09	6.76
Balsam fir	164,587	283,292	25.5	1,806,911	5.81	6.38
Hemlock	19,178	47,360	4.3	201,480	5.53	4.25
Jack pine	40	19,383	1.7	101,675	4.00	5.25
Poplar	4,405	4,141	0.4	29,081	6.21	7.02

The average price of ground wood pulp increased by 87 cents and that of chemical fibre by $1.20, from 1912 to 1913. The price of mechanical pulp exported to the United States increased by only 2 cents a ton while the increase to Great Britain was $1.78. The price of chemical fibre exported to the United States increased by $1 32 and to Japan by $2.65. The chemical pulp exported to Great Britain was valued at a little more than half the value in the previous year. A reduction in price of $3.09 was also reported for the pulp exported to China.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

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Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

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Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Wanted

One or two blocks of Spruce, also Pine, must be well manufactured. Apply Box 31, Canada Lumberman, Toronto. 11-t.f.

Wanted To Buy

Two million No. 1, 2 and 3 Pine Lath and one million Hemlock Lath.

M. BRENNEN & SONS,
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Wanted

500,000 feet Hard Maple, 1½-in. to 4-in. Also 1-in. Basswood. Shipment Summer and Fall. Terms Cash. Box 32, Canada Lumberman, Toronto. 11-12

Wanted

1,000,000 ft. Spruce, 1-in., 1¼-in. and 2-in. If not already cut will give sawing instructions. Apply Box 30, Canada Lumberman, Toronto. 11-t.f.

Wanted

Soft Elm, 4/4 log run.
Birch, 5/4 log run.
Quote lowest prices F.O.B. mill for dry or new cut.

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fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

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For Sale

A few thousand slightly undersized ties, ready for shipment. Also cut of Jack Pine Lumber, ready for shipping in thirty days.

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Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
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A Bargain

150,000 ft. 2 x 4 and up 10/16 Merchantable White Pine.
70,000 ft. 6/4 x 4 and up 10/16 Merchantable White Pine.
1913 cut, bright nice stock, good end all in.
Get delivered price your station.

The A. Sherman Lumber Company,
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We Own and Offer

subject to prior sale, the following Rock Maple lumber:

200,000 ft. 1sts and 2nds 4/4 in., $33 per M.
30,000 ft. No. 1 Com. 4/4 in., $23 per M.
30,000 ft. 1sts and 2nds 6/4 in., $35 per M.
10,000 ft. No. 1 Com., 6/4 in., $25 per M.
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These prices are all f.o.b. shipping point, on an easy rate of freight to New York and Boston.

c Apply Box 47, Canada Lumberman, Toronto, Ont.

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For Sale—Cheap

1 Pony Planer, McGregor & Gourlay, 24-in., in good running condition.
1 Iron Saw Table 3 ft. x 5 ft., Ballantyne Tilting Guide.

Box 28, Canada Lumberman, Toronto. 11-13

WOODWORKING MACHINERY FOR SALE: 1 24-in. Champion planer, matcher and moulder; 1 10-in. Hespeler four-side moulder; 1 No. 619 Corporation saw table; 1 6½ ft. Crescent swing saw; 1 40-in. MacGregor-Gourlay pedestal bandsaw; 1 16-in. Ideal wood lathe; 1 Hespeler improved power mortiser; 1 Cowan panel raiser; 21 Cowan veneer-press screws; 1 No. 51 Crescent universal woodworker. H. W. PETRIE, LIMITED, Toronto. 13

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

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Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

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EXPERIENCED SUPERINTENDENT wants position to take charge of lumbering operations, bush, mill, etc. Desires a change. Can get results and furnish the highest credentials. Box 46, Canada Lumberman, Toronto. 13-17

Situation wanted by married man, thirty years old, as Accountant, Chief Clerk or Secretary-Treasurer in a Wholesale Lumber Firm. Ten years' experience. Best of recommendations. Apply to Accountant, P. O. Box 69, Three Rivers, Que. 12-18

A thoroughly practical lumberman wishes to connect with reliable firm either as salesman or buyer. Ten years as partner in well-known Ontario lumber firm—six years' experience selling on road. Familiar with every angle of lumber business. Would consider salary or commission proposition. Best of references. Full particulars from Box 37, Canada Lumberman, Toronto. 12-15

Situation as FORESTRY ADMINISTRATOR or in the LUMBER TRADE, wanted by two Swedish foresters, both of whom have matriculated, and also passed the higher course examination of the Royal Forestry Institute in Stockholm. Afterwards having positions in the Forestry Administration Department of the Swedish Government; in private Sawmills; and in Forest administration. Both speak English, German and French. One is 40 years old and has been for 5 years manager in a Swedish Sawmill, during which period he has personally attended to the planing, selling and dispatch of timber. The other is 33 years old ,and has during the past 3 years been factor on a Swedish estate, and personally handled every matter attendant upon the administration of a private forest. Correspondence gladly received, together or separately, to "Lumberman 40" or "Lumberman 33" c/o S. Gumaelii Annonce-bureau, Stockholm, Sweden. 13-14

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—A young man with experience as salesman for sash and door factory. Apply to Box 38, Canada Lumberman, Toronto. 12-15

WANTED—An experienced Planerman, capable of setting up machine. State experience and give references. Address Foley Bros. & Nor. Constr. Co., Scott, via Ruel, Ont. 13

YARD FOREMAN wanted by medium sized factory in Western Ontario. Must be qualified to inspect hardwood lumber, and able to handle men unloading and piling. Apply, stating qualications, to Box 36, Canada Lumberman, Toronto. 12-13

WANTED—Salesman calling on the lumber trade and contractors in the Eastern Provinces, to handle Dr. J. M. Stewart's Veterinary Remedies as side line.

Palmer Medical Company, Ltd.,
10-t.t. Windsor, Ont.

Business Chances

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Complete sawmill outfit. Machinery practically new. Capacity 20 M. Two boilers 60 and 40 h.p., with cold blast grates, endless log chain, 8-in. steam feed; 3 block carriage with boss dogs; friction canter and sweep; 3 saw edger; 2 saw trimmers and a full complement of saws and belting. Also Long Mfg. Co. lath mill in first class condition will be sold with sawmill or separately. Mill near White Hall, Ont. Apply to Box 41, Jordan Harbor, Ont. 11-14

For Sale

The best timber berth in Alberta, containing approximately one hundred million feet, four-fifths of which is splendid spruce. A railroad will pass within one mile of the limit this summer. The situation makes it an exceedingly easy limit to operate. Price $2.00 per M., easy terms. On account of its close proximity to the prairie markets and easy logging, this is cheaper than B. C. timber for nothing. For further information apply to Box 25, Canada Lumberman, Toronto. 11-14

Timber Sale

Tenders will be received by the undersigned up to noon of the 6th day of July, 1914, for the right to cut the Red and White Pine timber on Berths 1 B, 1 C, and 1 D, in the Mississaga Forest Reserve tributary to the north shore of Lake Huron, each Berth containing an area of 36 square miles, more or less.

For maps and conditions of sale apply to the undersigned or the Crown Timber Agents at Thessalon, Sault Ste. Marie, Webbwood and Sudbury.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, April 18th, 1914.

N.B.—No unauthorized publication of this notice will be paid for. 9-13

Timber Sale

Tenders will be received by the undersigned up to noon of the 15th day of July, 1914, for the right to cut the Red and White Pine timber on berths 1, 2 and 3, Township of Blyth, in the District of Nipissing.

For maps and conditions of sale apply to the undersigned, or the Crown Timber Agents at Sudbury and North Bay.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, May 4th, 1914.

N.B. No unauthorized publication of this notice will be paid for. 10-13

For Sale
Timber Limits and Saw Mill

Limits No. 59 River Gatineau, 3 square miles, and No. 483 Grand Lake Gatineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Cedar, Pulpwood, etc., also New Waterous 8-ft. Improved Double Cut Band Mill, fully equipped and up to date 200 H.P. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggons, Trucks, etc., Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q., about 50 miles from Ottawa. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

GUARANTY TRUST COMPANY, LTD.,
802 E. T. Bank Building,
263 St. James Street.
13-16 Montreal, Que.

Sale of Pine Timber on Metagami Indian Reserve

Tenders will be received by the undersigned up to and including the 6th day of July next for the right to cut the Red, White and Jack Pine timber over eight inches in diameter on the Metagami Indian Reserve, situate on the Metagami River in the District of Sudbury.

For particulars, descriptions, conditions, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.

Department of Lands, Forests and Mines,
Toronto, May 2nd, 1914.

No unauthorized publication of this notice will be paid for. 10-13

Tenders for Allan Water River Wood Limit

Tenders will be received by the undersigned up to and including Wednesday, the 15th of July next for the right to cut ties from Spruce, Balsam, Banksian or Jack Pine, Poplar and Whitewood trees seven inches and upwards in diameter two feet from the ground sufficient to supply a tie preserving plant for a period of twenty-one years from unoccupied, unsold and unlocated lands of the Crown tributary to what is known as the Allan Water River, tributary to the Grand Trunk Pacific Railway in the District of Thunder Bay.

Tenderers shall state the amount they are prepared to pay as bonus in addition to the Crown dues of $2 per thousand feet board measure for anything not manufactured into ties, and for ties at the rate of 5c each, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council.

Such tenderers shall be required to erect within the limits of the territory covered by the right to cut ties, or at some other place approved by the Lieutenant-Governor in Council a tie preserving plant.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario for $25,000, to remain on deposit as security for the carrying out of the conditions of their tender.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.

Toronto, Ont., April 27th, 1914. 10-13

Miscellaneous

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Brazilian Walnut

A cabinet wood from South America, which passes in the market as Brazilian walnut, has made its appearance in England, Germany, France, and Italy, where it is regarded as of excellent quality. There are three kinds in trade, but it appears to be uncertain whether three species are represented or whether all belong to the same species and simply differ in color. The botanical names don't accompany descriptions of timber, and would amount to little as a means of identification if given, because the botanist has scarcely skimmed the surface of that country. The same tree has so many names, and so many woods pass under the same names, that the importer of Brazilian woods is never sure of what he is handling unless he sees them for himself, and even then he may be uncertain.

The Brazilian walnut being sold in England is of a yellow variety, a black, and one a grade between. Logs of this wood vary from sixteen inches to three feet in diameter, and up to thirty feet in length, and the wood has a weight of from forty to forty-eight pounds per cubic foot. The grain is fine and regular, and the wood is easy to work and takes a very high polish. It is the favorite wood for furniture in Brazil and Argentine, and may be specially recommended for the making of furniture, cabinet work, and panelling, as well as wagon construction and decoration, and both for interior and exterior work. Many of the large steamers running between Europe and America are panelled with Brazilian walnut most effectively.

A peculiar characteristic of Brazillian walnut is that it so quickly becomes darker with age, the fresh cut wood increasing in color and beauty a few days after it is cut and exposed, while even the lightest colored species, known as Canary walnut, acquires a rich brown hue, and the grain becomes more apparent when polished.

It is said that the supply of walnut in the South American forests can be depended on.

Waste of Wood in Industries

Each class of wood user is making use of material that formerly was considered waste.

The manufacturers of planing mill products no longer burn shavings and sawdust merely to get rid of it, but sell it for bedding and packing, for refrigerator cars, etc.; while the larger slabs and other pieces go into laths or bundles of kindlings.

Spruce and hemlock slabs and edgings are sometimes sold to sulphite pulp manufacturers.

The general millwork establishments in cities utilize most of their short pieces and odd lengths in one way or another, even to the turning of small pieces of beech into wooden button forms, clear hardwood short pieces into novelties, mirror and brush backs, and small strips into mouldings.

Several minor industries now depend upon the waste from the major industries for part of their raw material.

Toy and novelty manufacturers frequently obtain their stock from the fixture, furniture and general millwork men; camera works obtain the small blocks from the manufacturers of billiard cues; manufacturers of small chair sleds and toy wagons use odds and ends from furniture establishments; while the producers of small mallets and handles obtain much stock from large vehicle establishments.

Practical Briquetting

U. S. Consul-General R. E. Mansfield, of Vancouver, B.C., has made an interesting report upon the briquetting of sawdust as carried on by plants at Victoria and at Vancouver. At the former place bark and slabs are used, as well as sawdust, being passed through shredding machines and reduced to fine particles from the size of a match to a quarter of an inch in thickness. The material is entirely kiln-dried, then compressed by machinery into rolls 3 inches in diameter, which are held together by wrapping with a 7-ply jute string. No other bond or binder is used.

In the other process wood refuse 65 per cent., coal 25 per cent., and pitch tar or oil 10 per cent., are thoroughly mixed together and compressed in a machine having a maximum pressure of 10,000 pounds to the square inch.

The report gives cost of manufacture and of delivery within a mile of the factory at $3 a ton, which is much less than the cheapest grades of Pacific coast coal. Tests of the fuel have shown 8,614 British thermal units to the pound, with 2½ per cent. of ash.

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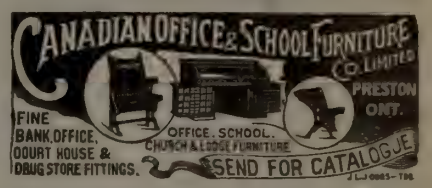
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MONTREAL

Cleans a building of Rats and Mice in short time, keeps it cleaned, for it is always ready for use. Made of galvanized iron, can't get out of order, lasts for years. Large number can be caught daily. Go to Catcher mornings, remove device inside, which only takes few seconds, take out dead rats and mice, replace device, it is ready for another catch. Small piece cheese is used, doing away with poisons. Catcher is 18 inches high, 10 inches diameter. When rats pass device they die, no marks left on them. Catcher is always clean. One of these Catchers set in a livery stable in Scranton, Pa., caught over 100 rats in a month. One sent prepaid to any place in Canada or United States upon receipt of $3. Catcher, 8 in. high, for mice only, prepaid $1. On account of shipping charges being prepaid, remittance is requested with order.
H. D. SWARTS,
Inventor and Manufacturer, Scranton, Pa.

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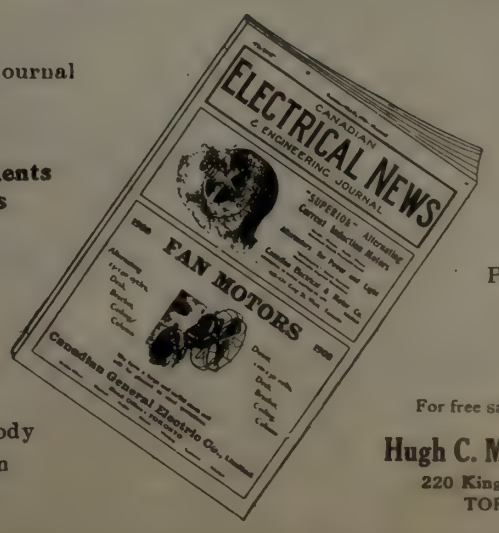

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Review of Current Trade Conditions

Ontario

Lumber trade conditions in Ontario show no important change, but a few reports which have recently been received by the Canada Lumberman indicate that many of the retailers are enjoying quite satisfactory trade, and that conditions may be expected to improve rather steadily, as soon as any important general factors for improvement are reported, such as a really satisfactory crop. One report recently received is of a specially interesting nature. The writer states that up to the present month business has been better than in any previous year and that he is finding great difficulty in filling his orders promptly. The same dealer has on his books more orders than at any previous time. Another firm reports that its trade is increased 150 per cent this year. A third firm which handles finish stock states that it is doing more business in the finish line this year than last. Still another states that he never had brighter prospects, especially in connection with shingles. Another retailer states that his business this year is in a prosperous condition and as good as in an average year.

One may find also many reports of an opposite nature, but it is noticeable that these come more from wholesalers than from retailers. Apparently, the retailers laid in fairly good stocks early in the year and have not yet found it necessary to replenish to any great extent, so that the wholesaler is still finding trade rather quiet. A continuation of present conditions however, and the surety of a good crop, should combine in the near futuer to improve the wholesale trade. This condition, when it develops, is likely to meet with a shortage in production at the mills, as a result of the poor driving conditions which have existed this year. With a little encouragement therefore, it is not unlikely that trade will show a very gratifying improvement towards the end of the present summer or early in the fall. These are not confident predictions, because many things may happen between now and then, but it is unquestionable that the situation points to the possibility of developments such as those which have been outlined above.

Trade continues quiet in the Ottawa district. Continued dry weather has affected the mills to some extent, as it is feared that the supply of logs will be insufficient to keep them all going throughout the sawing season. Some prices have shown a tendency to ease off during the past fortnight, particularly pine good strips which are about $2 lower at $38 to $40. A similar drop is reported in pine good shorts, 1-in. x 7-in. which are now selling at $40 to $42.

Eastern Canada

The lumber trade at Montreal and throughout Quebec province continues very quiet. In the large centres, the high values of land are preventing an increase in building operations. Labor is also expensive and contractors are feeling the pinch considerably. There is a good demand for houses, but the profit for contractors is small. The result is not promising. Collections are slow, especially among retail firms. The outlook for the export season is not very bright, as none of the important shippers will send large amounts of lumber to Great Britain. The groundwood market is quiet and there is not much demand for pulp from the United States. A little improvement is noted in the demand for chemical pulp, but prices are still below those of a year ago.

Trade has continued on a fairly active basis at St. John, N.B., during the past fortnight. Local business growing out of the house building line is good. A gradual improvement has occurred in all lines since spring. English deals have all been sold. Rafting and sorting operations at Fredericton have been going ahead rapidly and successfully. Shippers of English deals are not sending much stock across at present, preferring to hold back so as to steady the market on the other side. The American market is quiet, although in New York considerable improvement is reported. New England business is not as good as it was earlier in the season. Prices show no change.

Great Britain

The lumber trade at London continues quiet and importers are not inclined to make any new transactions unelss they can secure an important advantage in price. There is a feeling of uncertainty as to what the future may show, and buyers are inclined to avoid danger if possible. Last year's stocks are now practically cleared. Joiners stuff is very scarce and continue at a steady price. Deliveries at London docks for the week ending June 6th amounted to 7,819 standards as compared with 6,940 standards in the corresponding week of last year. At Foy Morgan & Company's recent auction sale Quebec spruce, 3 x 9, 3rd, was sold at £11 10s., 5th at £9 5s., 3 x 8 and 3 x 7 unsorted at £9 15s., and £9 10s., 3 x 7, 2nd, at £9 15s.

Board of Trade reports for May show a decrease of imports and exports compared with last year, but a substantial increase over 1912. At Liverpool, a lull is reported in the spruce c.i.f. market. Shippers are not very anxious to place their stocks for future delivery and very little is offering. The Timber Trades Journal, in a recent issue says regarding this point, that there is still a large quantity to come over later on, but a considerable quantity of logs have been hung up in the rivers and it is at present very doubtful if these will be available. "Whether this has anything to do with the shippers' attitude remains to be seen" says the journal, "but it is certainly true that about the only goods on offer are practically all from the lower parts. The better class of deals will not be over plentiful, and importers who have already secured cargoes at reasonable quotations will not be ill-advised to ignore as far as possible existing conditions and wait for their arrival before sacrificing just to realize." Spot demand is not very good, the main idea being to turn over goods in order to avoid putting them into stock. Consumers are buying only for immediate requirements, expecting to do better later on.

Birch c.i.f. transactions are not numerous at Liverpool. Values however, are well maintained. Importers have not been making many contracts for birch logs at the high prevailing prices. The drop in freight rates has made recent quotations more reasonable, but speculation is rather light. Imports of birch planks have been a little heavier than the demand requires. The spot demand is fairly steady, with indications of improvement.

United States

Reports from northern points in the United States indicate that a broadening of business has commenced and that northern pine is showing the effects of the good crop outlook. Retail business is apparently on the increase and orders for stock from retailers are more numerous. Farmers are apparently taking advantage of the lull in field work to make a few repairs. Northern pine is feeling the improvement more than hemlock and manufacturers are expecting improvement as the year advances. A report from Minneapolis states that retail yards are selling a great deal more stock than they were a month ago. Warm weather has benefitted retail trade considerably. Traffic is also showing an increase. In the larger cities, there is quite an extensive consumption of lumber in building operations. The country trade is more or less restricted, but is expected to improve during the next few months. The northern pine situation is fairly satisfactory Although sales have not been as extensive this year as last, production has also fallen off and prices have held fairly well.

The hemlock market is not so satisfactory as the northern pine market, and there is a great deal of difference of opinion as to actual conditions. However, those who are handling hemlock seem to be busy, although most of the buying is in small lots at frequent intervals. Hemlock manufacturers are expecting to share in any improvement which follows the good crop which is now indicated.

Dealers in northern hardwoods seem to be enjoying a fairly steady trade. The demand is just about holding its own. Prices are firm. Furniture factories appear to have been buying steadily and to be enjoying a fair amount of business. Future buying is quite general among furniture dealers. Implement factories have been consuming extensively during the past two months. Car construction has been backward on account of the conservative stand taken by the railroads. The general opinion seems to be that at the end of the season there will not be much of this year's cut of hardwood left in the piles.

At Buffalo, building operations are going ahead at quite a good rate, but no increase has developed in the demand for hardwoods. Some improvement is reported in the demand for hemlock, especially in small lots. Shingles and lath are unchanged, but the demand is good. Southern pine is not showing any improvement. The better grades of northern pine are in small demand, but a fair business is reported in the common trade. A slight improvement is reported in the northern pine trade at Tonawanda. Shingles and lath are not showing any improvement. Small orders for hemlock are frequent. The hardwood market is rather poor.

Mr. William Rutherford, of William Rutherford Sons Company, Montreal, has been elected a member of the Education Committee of the Canadian Manufacturers' Association. Mr. J. A. Riordon, of the Riordon Pulp and Paper Company, Toronto, is a member of the Transportation Committee, and Mr. Carl Riordon, Montreal, of the executive council.

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

Cleveland-Sarnia Sawmills Co., Limited

Sarnia, Ontario

View of Mills in Sarnia.

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That we saw the year round and always have large stocks of

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Large timbers cut to order, any length up to 60 feet, from Pine and B.C. Fir.

Headquarters for Norway Silo Stock.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Montreal Market Still Very Quiet

Montreal, June 25th (Special to the Canada Lumberman): In almost every direction there is the same complaint of lack of orders. We are experiencing the inevitable reaction from the days of booming trade, and although conditions are not as bad as some pessimists are proclaiming, there is no doubt that business is not, generally speaking, on a large scale. The high values of land are restricting building operations, and the heavier cost of labour is also handicapping contractors. The demand for houses is as great as ever, but many contractors say that there is comparatively little profit in residences and flats. Under all these circumstances, it is only to be expected that the lumber trade is not nearly as brisk as it was, and that the outlook is not promising.

Collections are by no means satisfactory, and this applies particularly to retail firms.

The export season promises to be one of the poorest for several years. None of the principal shippers are sending any large quantities of lumber to Great Britain, and, unless there is a strong revival, the exports will be far below those of last season. A good indication of the small amount of lumber offering is the reduction in steamship freight to 33s. 9d., compared with 42s. 6d. twelve months ago.

There is little change in the groundwood market. The low water conditions in Canada continue, and there is little demand for pulp from the United States. Prices are unchanged.

For chemical, inquiries are slightly better, while in the United States, there is an increase in the demand. Quotations, however, are not equal to those of last year.

The following official figures of exports of chemical and groundwood pulp and newsprint, for the fiscal year ending March 30 last, show a moderate increase in chemical, a slight gain in groundwood, and more than double of newsprint.

Month 1913	Chemical pulp $	Mechanical pulp $	Newsprint. $
April	202,110	143,126	596,554
May	201,276	234,494	810,554
June	121,199	173,445	874,284
July	218,302	251,284	793,898
August	203,542	276,171	889,645
September	232,835	399,057	941,986
October	233,159	467,878	976,028
November	273,278	357,688	1,037,207
December	311,251	450,030	1,057,817
1914			
January	257,194	265,750	928,223
February	254,250	174,522	1,049,778
March	414,687	259,296	1,432,850
Year 1913-4	2,923,082	3,441,741	11,386,845
Year 1912-3	2,100,842	3,408 702	5,692,126

St. John Market Holding Steady

St. John, N.B., June 22; (Special to the Canada Lumberman).—The market at St. John has not lost any of the improvement noted in the last reports. In fact, locally, business is good in the house building line. Of course, no very heavy construction work is going on, but a gradual improvement in all lines has taken place since spring. Prices have not risen at all. All the deals for the English market have been sold. This leaves only the side boards and smaller stock for sale, which in some cases have been disposed of for the entire season.

About all the logs which are being driven down the St. John river have arrived at the Fredericton booms. The rafting operations which began June 10th are being carried on with great rapidity under the new arrangement. This way of rafting has done away with the use of boom poles across the logs and also much sorting of marks. Many mills in the past had a lot of different operators and their marks were all separated and rafted by themselves, which caused a very heavy expense. This has now been done away with and each mill rafts all its marks together, about 40 to 50 million logs are now in the booms.

English deals are not being shipped from here to any great extent, as the shippers are holding back what they can, so as to steady the market on the other side all they possibly can. Of course during July and August the shippers will be forced to take away a certain amount of stock from the mills, so as to keep the mills supplied with piling room.

The American market is not showing any great improvement. In fact, in New England, business is not so good as it was earlier in the season, but in New York business is much better, although it is doubtful if it will continue so, as the heat of summer necessarily retards construction work. Messrs. Stetson, Cutler & Company are shipping quite a lot, especially during the last two weeks, all going to the American market. Prices remain about the same as in the last report. Laths remain unchanged, demand being fair. Low grade stocks are in good demand; shingles show no improvement at all. The box shook trade is not so good as in early spring, but this is always a dull time in the trade, which will undoubtedly show some improvement during the next month.

Prices Easier at Ottawa

Ottawa, June 23 (Special to the Canada Lumberman): Trade continues to be far from brisk throughout the Ottawa district. The prolonged dry weather, which has lasted for several weeks, being broken only by a few hours heavy downpour last Friday, is not helping to improve things. Though none of the mills on the streams tributary to the Ottawa have closed, they are being considerably handicapped through lack of water.

There have been several changes in prices during the last two weeks, chiefly in pine, some of the high grades falling off owing to lack of demand for them. Pine good strips, which formerly sold at $40 to $42 have dropped to $38 and $40; pine good shorts, 1-in. x 7-in., and up have fallen to $40 and $42 from $42 and $44; pine good shorts, 1-in. x 4-in. to 6-in., formerly $32 to $35 are now $30 to $35; pine 8-in., s.c., 12 ft. to 16 ft., which were $26 to $27 have dropped to $25 to $26 and other grades of mill cull, strips and sidings have been reduced from $1 to $2.

When the Ontario government's conservation dam at Lake Kippewa broke last week a large number of logs in the reserve above the dams were washed through into the Ottawa river with the big volume of water that rushed through the broken dam. At this time of the year, when water is none too plentiful in the Ottawa, the break has proven a benefit to lumbermen. The break tore away two large concrete piers and a hole 61 feet long was torn in the concrete work of the dam. This is the second break in the structure within the last two years.

Boston Trade Still Dull

The Shepard & Morse Lumber Company, Boston, Mass., under date of June 19th, report that there are no developments in trade worthy of particular notice, as business continues on the same dull basis, with a tendency towards sagging of prices. The volume of business, they say, is not over 60 per cent of normal, and they do not expect much improvement until the fall, when it may come, or may not. Discussing prices, the company say that they think that there have been no special changes in prices recently, except perhaps that clear cedar shingles have dropped off 10c to $2.90 and clear whites to about $2.45, while the 16-in. Washington red cedar shingles are at about $3.35.

Liverpool Market and Price Report

Farnworth & Jardine in their monthly wood circular under date of Liverpool, June 1st, report as follows:—In the business of the past month there is practically no change to report. The arrivals generally were not excessive, but the demand is quiet, the consumption rather disappointing, and values difficult to maintain. Stocks of some of the leading articles are still too large. Ocean deal freights continue on a low basis.

Canadian woods—Pine timber—There is no improvement in the market to report. Waney pine—1st Class: Arrival consists of one small parcel to Liverpool; consumption is merely nominal; the demand is dull, and stocks, though moderate, are sufficient. 2nd Class: No arrivals, and little enquiry. Red pine—No change. Oak.—No imports; stocks, largely held in Manchester, are further reduced; the demand is dull, but prices remain steady. Elm.—A small import to Manchester, but no deliveries; moderate enquiry, with prices firm; a small parcel of round wood arrived in Liverpool against contract. Pine deals.—Light imports to both Liverpool and Manchester; deliveries have been disappointing; the demand is dull, but prices remain steady. Red pine deals.—Slightly improved consumption, but the demand is far from active.

New Brunswick and Nova Scotia spruce and pine deals.—The im-

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port during May to the Mersey (including Manchester) amounted to 3,600 standards, against 5,530 standards the corresponding month last year, about 55 per cent. being to Liverpool; deliveries show a slight improvement, and the stock is somewhat reduced, but still too heavy; sales are difficult; values easier. Pine deals show no change.

Birch.—Logs—Arrivals amounted to 39,000 cubic feet, the bulk being from St. John and Halifax; deliveries, chiefly from Liverpool stocks, have been fairly satisfactory, but hardly kept pace with the import; prices remain firm. Planks—Imports came forward more freely, but deliveries have been satisfactory; stocks are still fairly moderate, and values firm.

Prices current on Canadian goods are as follows:—

		£	s	d		£	s	d
Yellow Pine Timber—								
Quebec, square wood	per cubic foot	0	2	9	at	0	4	0
Waney board, square wood	"	0	3	0	at	0	5	6
St. John, 18-in. average	"	0	2	6	at	0	3	6
Red Pine	"	0	2	2	at	0	2	9
Oak—1st quality	"	0	3	6	at	0	4	0
2nd quality	"	0	2	6	at	0	3	3
Elm	"	0	3	6	at	0	5	6
Ash	"	0	1	8	at	0	3	0
Birch, St. John	"	0	1	7	at	0	2	2
Quebec	"	0	1	8	at	0	2	10
Nova Scotia, etc.	"	0	1	3	at	0	1	10
Birch Planks	"	0	1	0	at	0	1	6
Deals, Quebec, Yellow	per standard							
1st quality	"	27	0	0	at	43	0	0
2nd quality	"	21	0	0	at	30	10	0
3rd quality	"	13	10	0	at	18	0	0
Deals, Spruce—								
St. John Miramichi, etc.	"	9	0	0	at	9	15	0
Nova Scotia, etc.	"	8	15	0	at	9	10	0
Boards, Spruce, etc.	"	8	5	0	at	9	5	0
Oars, Ash	per running foot	0	0	6	at	0	0	11

London Market Report

Churchill & Sim, in their monthly wood circular, under date of London, Eng., June 4th, say:—

There is a reduction in the overside deliveries for May of some 1,900 standard as compared with last season's figures, the total consumption in the London area, as gauged by dock and overside returns, being about 87,000 standards to date, and thus practically identical with the 1913 quantities. These figures must be considered satisfactory in view of the continuing inability of masters and men to come to any agreement over matters in dispute in the building trade. A great amount of caution has been displayed by importers during the month, and large contracts have only been possible where shippers have been willing to meet the market; nevertheless the aggregate of business at about the April figures has been considerable, and, as stocks in this country are getting well reduced, more buyers are coming into the market at the current prices of the day.

The stock of timber, deals, etc., at the public docks on June 1st included the following:—

		1914.	1913.	1912.	1911.
Colonial Pine Deals and Battens in	Pieces	475,000	359,000	329,000	380,000
Red Pine	"	17,000	20,000	36,000	47,000
Spruce ditto	"	629,000	451,000	402,000	452,000
Oak Timber	in Loads	.....	.....	.....	32
Oak Planks, etc. (American)	"	3,695	1,592	1,972	1,271
Birch Timber	"	255	172	151	88
Birch Planks	"	4,243	3,679	2,819	2,373
Elm Timber	"	2,003	243	124	676
Ash Timber	"	28	.....	.....	.....
Yellow Pine Timber	"	873	624	233	125

From the St. Lawrence the importation was as follows:—

Pine deals, 17,000 pieces, against 16,000 pieces in 1913.

Spruce deals, 2,000 pieces, against none in 1913.

Birch planks, none, against 5,000 pieces in 1913.

and from New Brunswick:—

Pine deals, 3,000 pieces, against none in 1913.

Spruce deals, 102,000 pieces, against 227,000 pieces in 1913.

Birch planks, 200,000 pieces, against 184,000 pieces in 1913.

The importation of pine and spruce has so far been limited to one parcel, mostly pine. A considerable clearance sale of pine, mostly in board sizes, shows that the market values quality, but is indifferent to inferior parcels except at heavy reductions. There is still a fair stock of spruce on hand, but the small supply from Riga is holding prices from slipping back, and some few sales of lower port spruce have been effected at no reduction in values. A fair supply of birch planks arrived during the month, and prices were fully maintained.

British Columbian and Oregon Pine.—A sailing cargo, mainly of timber, arrived during the month and the stock is now too heavy. The downward course of the freight market for sailing cargoes appears to have been checked, but a great deal of patience will have to be exercised before values in London can recover their lost ground.

Liverpool and Manchester Stocks

H. W. Lightburne & Company, Liverpool, Eng., furnish the following report upon Liverpool and Manchester stocks on June 18th:—

Liverpool

	Import			Consumption			Stock		
	1912.	1913.	1914.	1912.	1913.	1914.	1912.	1913.	1914.
N.B. & N.S. Spruce & Pine, Stds.	1,830	3,910	1,970	2,200	2,680	2,140	2,710	3,960	5,660
Birch Logs, Loads	680	540	400	440	340	480	300	780	640
Birch Planks, Stds.	443	436	291	382	164	230	485	715	443
Manchester									
Spruce, Stds.	5,260	1,620	1,630	3,860	2,150	3,000	6,530	4,710	8,510
Birch Logs, Loads	440	340	380	180	120	80	300	480	540
Birch Planks, Stds.	97	115	327	85	115	91	206	418	497

Stocks in Manchester and Liverpool Combined

	1910.	1911.	1912.	1913.	1914.	
Spruce						
Manchester	6,630	5,200	6,530	4,710	8,510	
Liverpool	6,420	3,980	2,710	3,960	5,660	
	13,060	9,180	9,240	8,670	14,170	Stds.
Birch Logs						
Manchester	180	260	300	480	540	
Liverpool	720	960	800	780	640	
	900	1,220	1,100	1,260	1,180	Loads.
Birch Planks						
Manchester	734	115	206	418	497	
Liverpool	345	145	485	715	443	
	1,079	260	691	1,133	940	Stds.

What Saws Are Best for Small Logs

Editor Canada Lumberman:— Westboro, Ont., June 13th.

As I have had a long and practical experience in building and operating sawmills, I might give you some facts regarding the use of saws. The band saw, if properly fitted up, is the best for certain kinds of work, particularly large and medium sized and defective logs. If we could have strictly sound logs, the same as we once had on the Ottawa, then I would recommend the band and gang, too.

Some would prefer the band resaw to the gang; I would, too, providing that it has proper length of stroke, which, according to my experience should not be less than twenty inches for the above work.

The gang and band resaw both waste lumber if the logs are defective. With the resaw the piece has to be cut double thickness and the sawyer cannot choose the best as if he were taking off only one board in thickness. With the gang, when the cant is passed through it there is no pick or choice, for the lumber is made the same as the saws are set up for, regardless of quality.

Therefore, the band saw and carriage, and that machine alone, to my mind, and according to my experience, is the only one from which can be made the different sizes, according to quality. Some may advise a large circular saw for the above work, but for many reasons the band saw is preferable.

Now we come to the question of small logs, which is of interest to all lumbermen making sawn lumber. The logs are being taken out much smaller now than twenty years ago, and much rougher, too. In consequence of this the machinery for making the lumber requires to be strong and substantial, even if the logs are small. Many of them are taken out of the branches if they will make six inches diameter. In many cases they are a mass of knots and difficult to saw. If they are sawn fast the face of the lumber is rough, and the boards of uneven thickness. If sawn at a moderate speed the quantity is not made, and, as the lumber at best is not a high grade, it makes the small log question a difficult one to solve.

I visited a mill recently where they were sawing logs which averaged about 33 feet board measure. They split the log through the centre with a band saw and finished it on a horizontal band resaw by passing each half through and back. They were making about forty thousand feet per day with twelve men. I must say the face of the lumber was not smooth. Neither were the boards of even thickness, especially from the very knotty logs. In fact, much of the lumber was not merchantable.

It is all very well to see lumber passing through a machine very fast, but the matter is very different when the lumber is being shipped, if the inspector rejects 25 per cent. of it for bad sawing.

My experience has been that to have a saw do good, smooth, straight work there is a limit to the speed of the saw, and to the feed as well, and if we exceed that limit, rough uneven sawing is the result, it matters not what machine or saw is used.—I. N. Kendall.

In connection with new financing recently carried out by this company whereby $150,000 additional working capital was provided by the shareholders, certain changes in the management have taken place through the retirement of Mr. T. F. Kenny as General Manager. In future Mr. T. H. Watso, the newly elected President, will assume these duties and take an active part in directing the company's affairs.

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Low Value Lumber

THE LINDERMAN AUTOMATIC DOVETAIL GLUE JOINTER will enable you to solve three important problems YIELDING $4.00 to $6.00 MORE PROFIT PER THOUSAND.

1st. 4-in. COMMON LUMBER.

In most Western Mills this is sold for approximately $7.50 per thousand, whereas 8-in. shiplap brings from $14.00 to $16.00.

THE LINDERMAN DOVETAILER will take two 4-in. strips, convert them into a board 7¾ in. wide, allowing ½-in. for jointing both edges to make the lap, leaving a full 7-in. face, at a cost of .75c per thousand board feet. Add the cost of handling the lumber and of milling it into shiplap, leaves a net profit of at least $4.00 a thousand.

2nd. No. 3 GRADES, 6-in., 8-in. and 10-in. wide.

In most Western Mills No. 3 Grades increase in price perceptibly as it increases in width. One prominent lumber manufacturer maintains by converting 6-in., 8-in. and 10-in. widths of this grade into 12-in., 14-in. and 16-in. lumber, he will be able to obtain fully $4.00 a thousand more for it.

The cost of jointing this lumber on a LINDERMAN MACHINE is .75c per thousand, leaving a net profit of $3.25.

3rd. 2-in. and 3-in. STRIPS.

Practically all mills leave in the slab or convert into lath all lumber, regardless of grade, under 4-in. in width. By installing a LINDERMAN MACHINE and by saving all 2-in., 2½-in., 3-in. and 3½-in. stock this lumber can be converted into any width board desired at a cost which will average approximately $1.00 per thousand board feet. Profit from $4.00 to $8.00.

We are willing to send, at our expense, several pieces of 16-ft. long 8-in. lumber joined by our method, in Spruce, to any Lumber Manufacturer in the Dominion to be milled by his usual method, inspected and put to any test as to strength, durability and equality as compared with 8-in. one-piece stock, or we will join up any lumber which we can purchase in our local markets if spruce is not acceptable, or will join free of charge and will stand transportation charges both ways, any lumber which may be sent to us up to 1,000 feet.

A LINDERMAN DOVETAILER installed in your mill should and can save you at least $5,000.00 a year, if not more. We realize thoroughly this is a large figure, but would like the opportunity of putting our proposition before you so that it may be thoroughly considered by you and your assistants.

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Maritime Province Consumption of Wood

Detailed Report of Forestry Branch Tells of Totals Used and Varieties Consumed —Waste Product Conversion Extensively Practised

A bulletin upon the wood-using industries of the Maritime Provinces, compiled by R. G. Lewis and W. Guy Boyce, has been issued by the Forestry Branch of the Department of the Interior, as bulletin No. 44. A number of interesting tables and reports upon the use of various kinds of wood are included in the bulletin and a list is also given of commodities manufactured from each kind of wood, as well as a list of the manufacturers of the Maritime Provinces from whom the information in the bulletin was obtained.

To supply the wood-using industries of the Maritime Provinces, at least 200,000,000 feet B.M. of raw material is necessary annually. This total is made up of twenty-eight different kinds of wood, sixteen of which are native to the province. The greatest consumption is of spruce, namely, 116,269,000 feet B.M. or 56.9 per cent. of the total consumption. The consumption of other woods is far less than that of spruce, the next closest being pine, of which the consumption amounts to 24,095,000 feet B.M. The other woods which are consumed extensively include the following:—hard pine, 17,958,000 feet; birch, 13,159,000 feet; balsam fir, 10,273,000 feet; hemlock, 6,032,000 feet; oak, 3,789,000 feet; maple, 3,091,000 feet; poplar, 1,961,000 feet. Douglas fir is used to the extent of about 943,000 feet.

The manufacturers of the Maritime Provinces are proficient in adapting native woods to their own uses, as shown by the fact that only 12.3 per cent. of the wood used is purchased outside of the three provinces.

Building Construction a Large Consumer

The information from which the bulletin was compiled was received from over 600 firms using wood as a raw material. In building construction, the consumption of wood amounted to 60,991,000 feet. This was 30.3 per cent. of the total consumption. The consumption by other important industries was as follows:—wood pulp, 43,331,000 feet or 21.2 per cent.; car construction, 37,275,000 feet or 18.2 per cent.; cooperage, 21,253,000 feet or 10.4 per cent.; boxes and crating, 17,174,000 feet or 8.4 per cent.; hard wood flooring, 5,488,000 feet or 2.7 per cent.; bolts, etc., 4,530,000 feet or 2.2 per cent.; furniture, 4,416,000 feet or 2.2 per cent.

The highest average price paid by industries for their wood was by the sporting goods people, whose material cost them on the average $40.78 per thousand feet. The manufacturers of pulleys and blocks paid $39.96 per thousand feet on the average. Patternmakers paid $30.06. The wood used in the manufacture of boats, etc., cost $28.81 on the average. The cheapest raw material was that used in the production of fruit boxes, which cost $7.42 per thousand feet on the average. Wood pulp manufacturers used wood of an average value of $9.24 per M. feet.

Referring to the boat building industry the bulletin says: "The manufacture of large wooden sailing vessels was at one time among the most important industries in the Maritime Provinces. The introduction of steel and iron boats, and the scarcity of native timber suitable for this purpose, has reduced this industry to seventh place on the list. The industry is now chiefly confined to the manufacture of small boats. Dories, skiffs and small fishing boats form a large proportion of the products manufactured, although some large vessels are still built. A large proportion of the wood goes into repair work on wooden vessels, wooden parts of steel and iron vessels, and all sorts of pleasure craft, such as canoes, rowboats, yachts and motor-boats.

"Nineteen kinds of wood are used in this industry, pine leading with 28.3 per cent. of the total. This wood is used chiefly for hull and deck planking in all sorts of vessels from dories upward. It is also used for interior finish on both wooden and steel boats.

"Pine is valued on account of its lightness, comparative durability, ease of working and the fact that it holds its place with a minimum of expansion and contraction.

"The boat and shipbuilding industry used greater quantities of cedar and tamarack than all the other industries combined. They purchased the most expensive cedar, Douglas fir, hard pine and mahogany, and the cheapest cherry."

In the production of boxes and crating, spruce leads with 11,397,000 feet B.M.

In building construction the most extensively used wood was spruce, the amount being 37,370,000 feet B.M. The average value of all kinds of wood used in building construction was $17.61 per M. feet. The second wood in order according to quantity used in building construction was pine, the total being 14,543,000 feet, which had an average value of $26.23 per M. feet. Referring to the building industry the bulletin says:—

"In almost every study made of wood-using industries, building construction leads the list for quantity of material used. While brick, stone, steel and concrete are supplanting wood as a structural material to an enormous extent, still the use of wood tends to increase for this purpose, especially in rough temporary structures. Even the most modern fire-proof buildings of steel, concrete and tile have wooden floors, wooden doors encased in metal, and interior finish of wood.

"Twenty-eight different kinds of wood are used, in quantity, by the wood-using industries of the Maritime Provinces, and, of these, twenty-three are used in building construction—a greater number than is used by any other industry.

"Many of the larger firms saw their material from the log and have a planing mill and builders' factory in connection with their sawmill. Others buy lumber and work it into shape for building material. These manufacturers use chiefly native material. Hard pine, cypress, basswood, tulip and Douglas fir form the bulk of the imports, together with smaller quantities of the more expensive decorative hardwoods such as oak, chestnut, mahogany, walnut and cherry. Altogether, only a trifle over three per cent. of the wood used is purchased outside the provinces.

"This industry uses more pine, hemlock and cypress than all the other industries combined, and takes all the butternut used. Manufacturers of pulp alone use more spruce than this industry. On the list of six other woods—Douglas fir, cedar, chestnut, mahogany, tamarack and walnut—this industry also comes second."

Railroad Cars Use Large Quantities

Sixteen kinds of wood are used in the production of railroad cars, a large percentage being hardwoods. Hard pine heads the list with over 17,000,000 feet B.M. or 46.3 per cent. of the total. This industry used practically all (96.1 per cent.) of the hard pine imported into the province.

Spruce forms over a quarter of the total wood consumed in car construction, and is used in freight cars as flooring, sidings and lining and also for the wooden parts of locomotives.

In the production of coffins, caskets, and shells, the Maritime Provinces consumed 1,176,000 feet B.M., of which the average cost was $21.16 per M. feet B.M. The preference of the people of the Maritime Provinces was apparently for pine coffins, as the quantity of this class accounted for the consumption of 680,000 feet B.M. or 57.8 per cent. of the total. The most expensive wood used in the production of coffins was oak, of which 2,000 feet was used, the average value being $50 per M. feet.

The manufacture of barrel stock is the fourth most important industry in the Maritime Provinces. In 1912 the production included the following:—slack staves, 39,939,000; slack heading, 2,746,662 sets; slack hoops 6,227,900; tight staves, sawn, 1,389,083; tight staves, bucked and split, 12,000; tight heading, sawn, 177,113 sets. The average value of cooperage wood was $18.71 per M. feet B.M., and the total quantity used was 21,253,000 feet B.M., of which 78.3 per cent. or 16,644,000 feet B.M. was spruce.

In the production of furniture the quantity of wood used was 4,416,000 feet B.M., of which the average value was $19.60 per M. Over 46 per cent. of this was birch, which was used to the extent of 2,032,000 feet.

In hardwood flooring, 5,488,000 feet of wood was used, the average value being $17.66. Over 60 per cent. of the hardwood flooring was birch, nearly 25 per cent. maple, 14 per cent. beech, and 0.7 per cent. oak.

Consumption of Wood for Pulp

In the production of wood pulp the following quantities were used:—spruce, 38,318,000 feet B.M.; balsam fir, 4,462,000 feet B.M.; hemlock, 499,000 feet B.M.; poplar, 30,000 feet B.M.

Referring to the wood pulp industry, the bulletin says:—

"Seven mills in Nova Scotia and four in New Brunswick in 1912 consumed 78,217 cords of raw material, valued at an average of $5.12 a cord. In addition to this, a total of 156,674 cords were exported from these two provinces in the unmanufactured form. This means that out of a total of 234,891 cords of pulpwood produced in the Maritime Provinces, only one-third is manufactured into pulp in the mills of the region, and a quantity of raw pulpwood is exported sufficient to supply at least twenty mills of the same average size as those in Nova Scotia and New Brunswick.

"This exported pulpwood is usually 'rossed' or barked before being shipped, but is otherwise in the unmanufactured state.

"A total of 55,701 tons of pulp is produced annually. Of this

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Lumber and Timber	1,000,000 feet	Fir Doors	2,000
Shingles	900,000	Three Ply Fir Veneer Panels	30,000 sq. feet

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Our Doors are sold by progressive Dealers from Pacific to Atlantic being made from the choicest selected stock produced by our big mill and manufactured by the most improved method in

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33,186 tons is ground wood or mechanical pulp; 18,515 tons is sulphite pulp and 4,000 tons is soda pulp.

"There are only five kinds of wood used for pulp manufacture, and of these spruce forms a greater part, as it does in most regions where pulp is produced.

"In the Maritime Provinces ground wood or mechanical pulp is made of spruce, balsam fir, hemlock, poplar and pine. Sulphite pulp is made from spruce and balsam fir only. Soda pulp is made entirely of spruce.

"The wood is purchased in the round, cut in four-foot lengths and is measured by the cord. The material is all native. This industry uses more spruce and balsam fir than any other industry. The average price paid for raw material is below the general average and lower than any other industry except the manufacture of fruit baskets. The prices paid for balsam fir and pine are the lowest reported."

Economical Use of By-Products

An interesting section of the report deals with the production of by-products from wood, in the following manner:—"The economical use of wood by any wood-using industry should include the close utilization of small pieces or pieces of odd dimensions which cannot be used in the main products of the industry. This is often called 'waste utilization,' but such material should no more be considered as waste than coal tar as waste in gas manufacture. In many industries the by-products are an important source of profit, and should be also in wood-using industries.

"It often occurs that one manufacturer is burning material under his boilers which another manufacturer could use as the raw material for his industry. The Forestry Branch has been instrumental in bringing many such firms into communication with each other. This, however, is unusual, especially with raw material at the low prices which now prevail. Manufacturers of brush-backs, for instance, in most cases find it more profitable to purchase rough lumber and cut this to the required size than to purchase waste from vehicle, furniture and builders' factories and to sort this out and select the material they could utilize. This is specially true with the larger firms who handle thousands of feet of lumber in a year. With smaller firms it is often profitable to buy waste from other factories, and the Forestry Branch is prepared to give this interchange of material every assistance possible. Many enquiries are received from firms with waste to sell of certain sizes and many also from firms who wish to buy material of certain sizes, and whenever advisable, buyers and sellers are put into communication with each other.

"The greatest saving of raw material and the greatest increase in profit is obtained when a manufacturer makes a study of the uses of wood and in his own factory manufactures by-products of saleable value. Not many years ago most factories purchased their lumber from the sawmills and manufactured boxes from this. At the present time almost every large sawmill has a box factory in connection with it, and this industry by itself is a source of profit as well as a means of utilizing much of the rough lumber which would otherwise go to the waste-burner.

"This saving can be carried into greater detail with equally satisfactory results where more expensive wood is used in manufacturing more complicated products.

"The following list of uses for wood-waste is the result of reports received from wood-using industries in the Maritime Provinces and in Ontario.

"Sash and door factories sell or use their short ends and trimmings for the manufacture of apple, fish and other boxes, bathroom fittings, baskets, bobbins, brush-blocks, butter-moulds, dowels, fire-work-woods, heading, game-boards, insulator pins, ladder rounds, letters for signs, lobster pots, match-blocks, novelties, skewers, spindles, spools, stakes, tool-handles and woodenware. They bale their common sawdust and sell it to butchers for floor covering, to manufacturers of composition novelties, and to screw factories for cleaning screws. They sell shavings for bedding, packing and for drying wet land. Hardwood sawdust is sold for smoking meats. Small waste pieces are sold for making ground wood pulp, wood fibre for plaster work, and as a substitute for gravel in concrete masses.

"Furniture factories utilize waste in the manufacture of boxes, brush-backs, crates, dowels for export, inkstands, jardiniere stands, waste paper baskets, rosettes, stools, tabourets and toys, and utilize cuttings of quartered oak and mahogany for wood carvings.

"Boat and ship building firms reported the use of their small waste in the manufacture of boxes, boiler blocking, crates, ladder pickets, plugs, surveyors' stakes, skids, skis, toboggans, tent-pegs, wedges, and whiffle-trees. They sold shavings and sawdust for bedding.

"Manufacturers of vehicles utilized their waste chiefly in the manufacture of handles for small tools, such as chisels, files, hammers, or gimlets, and also for the manufacture of dowels, furniture squares, ladder rungs, pump handles and wheelbarrows.

"Agricultural implement makers also have a good opportunity for manufacturing tool handles, which many of them take advantage of. They also utilize waste in the manufacture of washing machine parts and sell sawdust for concrete mixing.

"Box and crate manufacturers use their material down to very small cuttings, and consequently have little useful material left. They make butts of hard maple logs into meat blocks and manufacture some small handles and mouldings and sell their shavings for bedding.

"Manufacturers of store and office fixtures make staffs for railway flags and use basswood in making mail boxes.

"Foundry men and heavy machine manufacturers utilize their waste in making battery boxes, skids, crates, pulleys and small parts of patterns, and sell shavings for bedding.

"Novelty makers use small pieces of waste in the manufacture of 'producer gas.' They sell common sawdust for making pincushion frames, hardwood sawdust for smoking meats, and pine and cedar sawdust for metal polish.

"Sporting goods manufacturers reported using waste for spindles, blind roller parts, brush blocks and pail handles.

"While sawdust is usually considered as more of a nuisance than a commercial product, it can be utilized for some purposes, depending chiefly on the proximity of the market. A number of methods of chemical utilization of sawdust have been experimented on in the past with varying results. A large lumber concern in British Columbia is erecting a $50,000 plant for the manufacture of sawdust into briquettes for fuel. This plant will have an output of thirty tons of briquettes a day, which will sell for about five dollars a ton at the mill."

An Effective Rat and Mouse Catcher

An interesting advertisement of a very effective rat and mouse catcher, invented and manufactured by H. D. Swarts, Scranton, Pa., appears in this issue, to which we wish to draw the attention of our readers. The rat and mouse catcher is a most ingenious arrangement, which, its inventor claims, will clean a building of rats and mice in a short time, and keep it clean, as it is always ready for use. It is made of galvanized iron, cannot get out of order and lasts for years. A large number can be caught daily for the device on the inside resets itself after each rat or mouse passes it. It is only necessary in the mornings to remove the device from the inside, take out the dead rats and mice, and replace it. Two small pieces of cheese are used as bait, thus doing away entirely with poison. The catcher is 18 inches high and 10 inches in diameter. A catcher 8 inches high for mice only is also manufactured.

Every lumber mill and yard keeps a large number of horses and the owners seldom realize the amount of worthless feed their animals

eat on account of the rats and mice having eaten the heart out of the corn and the meat out of the oats. The efficiency of these traps is so great, the inventor claims, that there will be no more loss of feed in this manner, once the trap has been set. One large trap is reported to have caught over 500 rats in three months in one establishment. Readers who are interested may secure further information, prices, etc., by writing to Mr. H. D. Swarts, P. O. Box 566, Scranton, Pa.

Prince Rupert Buys Morris Overhead Crane

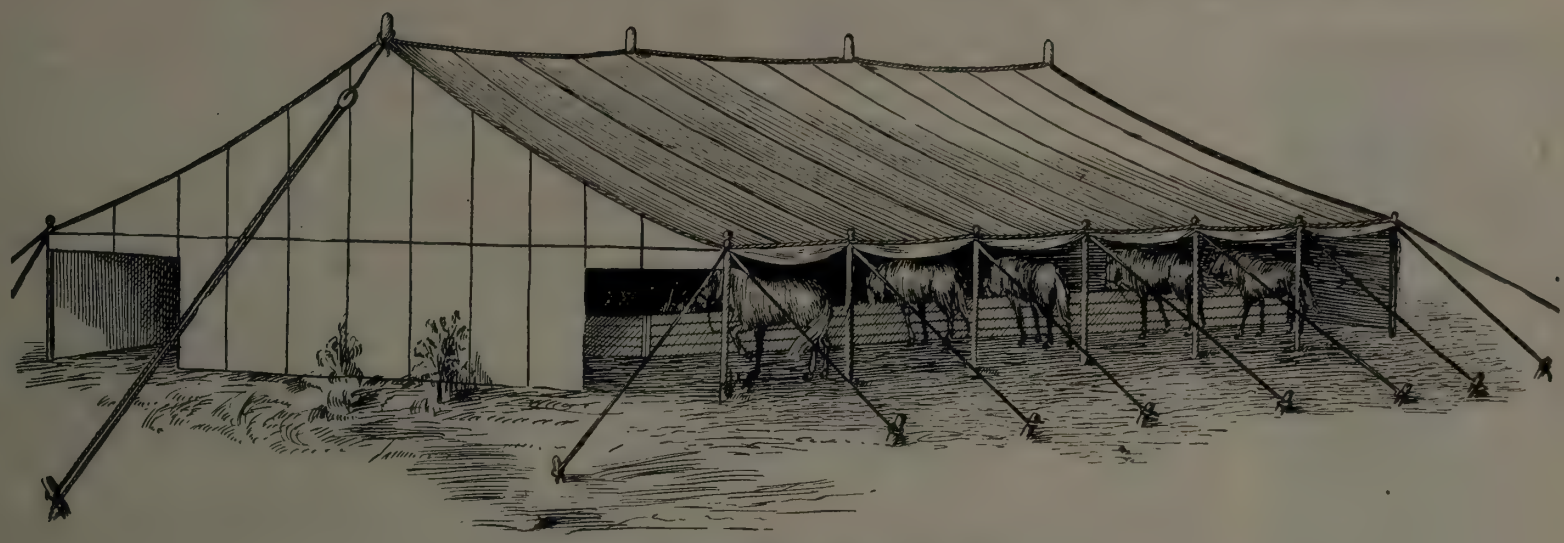
An order has just been received by the Herbert Morris Crane & Hoist Company, Limited, through their agents in Vancouver, Messrs. Waddy & Young, for a 10-ton hand operated overhead traveling crane, fitted with Morris Roller Bearings to the main traveling motion. This order was placed by the City Engineer of Prince Rupert after considering quotations from all the leading North American makers of cranes. The new power house is well under way and is expected to be in full operation before the fall.

Harris-Hayes Company in New Quarters

The Harris-Hayes Lumber Company, wholesale dealers in southern stocks, specializing in piling, have opened offices in the Ryrie Building, Toronto. Mr. Harris has had many years' experience in the lumber business in the southern States, and came to Toronto from St. Louis, while Mr. Hayes is a native of Ontario.

LOOK LUMBERMEN!

STABLE TENTS



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WINNIPEG
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Smart-Woods LIMITED

OTTAWA
MONTREAL

Jenckes Boilers

Horizontal Tubular Boiler
Locomotive Type Boilers
Vertical Boilers
Heating Boilers

Penstocks
Smokestacks
Steel Tanks
Plate Work

All Sizes, To Any Provincial Act. Write for quotations.

The Jenckes Machine Co.

Limited

Sherbrooke, Montreal, St. Catharines, Toronto, Cobalt, South Porcupine, Vancouver, Nelson
Works: Sherbrooke, Que., St. Catharines, Ont.

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

The Galt Knife Company, Limited

Ward Vair, Galt Ont., Man. Dir.

The new plant of the Galt Knife Company, Limited, Galt, Ont., manufacturers of machine knives, is now in operation, and the company report that they have a large number of orders ahead, on the books, and also that their prospects for future business are most encouraging. Mr. Thomas Vair, president of the Galt Knife Company is well known as the former manager of the Peter Hay Knife Company. Mr. Ward Vair, managing director, whose portrait is published herewith, was formerly superintendent of the Peter Hay Knife Company. The new plant of the Galt Knife Company, Limited, is located on a splendid factory site in the southern part of the town of Galt on the east side of the Grand Trunk tracks and also adjoining the new line of the Lake Erie and Northern Railway. The building is of handsome appearance, its size being 40 ft. x 140 ft. The foundations are concrete and the building is of red pressed brick piers, with steel sash used throughout, giving splendid light and ventilation. Georgia pine has been used in the construction of the building, with the exception of the office, which is finished in cypress. The building is of slow-burning mill construction.

The equipment in all the departments is of the most modern description, quite a number of the furnaces and grinding machines having been built from special designs, worked out by the company, which are said to be the last word in the heat treatment and manufacture of steels for the various requirements of woodworking industries and pulp and paper mills.

The Galt Knife Company, Limited, are also manufacturing a complete line of metal-cutting shear blades used by structural steel plants, boiler shops, stove foundries, etc. The plant is now equipped to handle blades of this description up to 120-in. long.

An Important New Defiance Machine

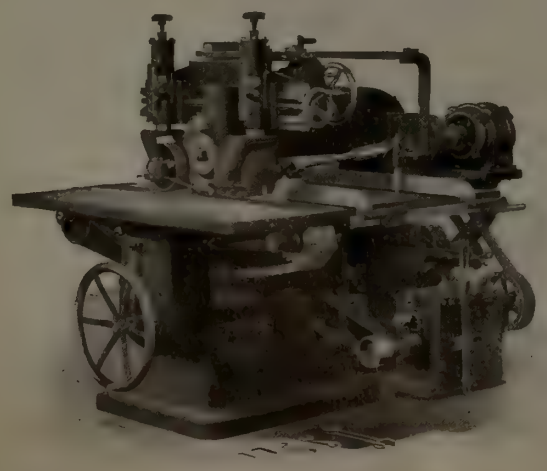
Experienced woodworkers agree that a sawing machine that will cut an absolutely straight edge; make an accurate glue joint and do ordinary ripping, in either hard or soft wood, at any desired capacity from 35 to 155 feet per minute, is "a consummation devoutly to be wished."

Such a machine, complete in every detail, has recently been placed on the market by The Defiance Machine Works, of Defiance, Ohio, U.S.A. It is known as the No. 121 Patent Chain Feed Straight Edger and Rip Saw, and is illustrated in the accompanying engraving.

This over-hung or top-cutting saw is a new departure from the accustomed methods of sawing and was evolved from successful experiments in making glue joints direct from the saw. Although a new machine, its success is assured, for, already, there are some fifty of them in daily use both in America and Europe, and in a wide variety of establishments, including spoke, wheel, wagon, carriage and automobile factories; body and furniture factories; agricultural implement, interior finish, sash and door plants; piano and organ manufactories, etc.

The machine will handle material of any length from 14-in. and up, to 3¾-in. in thickness by 32-in. wide, and with special saw collars will rip stock 4-in. thick. A special attachment is supplied, when required, for sawing extremely short stock. The table is 53½-in. x 56-in., is fitted with a brass scale, graduated in inches or centimeters, as required; has both a short and long friction gauge, and an adjustable sighting device. The machine has six changes of feed, viz., 35, 50, 65, 80, 105 and 155 feet per minute. The feed rolls as well as the patent feeding chain are power driven, having a positive movement without any jerking or vibration.

The feeding chain used on this machine consists of 32 self-lubricating links, each containing an oil reservoir. Its operation is equivalent to a rack and pinion movement. The top surface of the chain is checkered and is provided with a slot to accommodate the saw. The machine can be supplied for direct motor drive, or, to be driven from a counter. Counters for basement, floor or ceiling are furnished, as required. Additional information with reference to this, or any other Defiance machine will gladly be given, upon application to The Defiance Machine Works, Defiance, Ohio, U.S.A., or their agents.



No. 121 Defiance Patent Chain Feed Straight Edger aud Rip Saw

A Revolution in Lumber Stacking

The machine shown in the accompanying illustration is or should be interesting to all lumbermen whether they be manufacturers or dealers. It is the invention of Henry C. Hilke, General Superintendent of the Seattle Cedar Lumber Manufacturing Company of Seattle, Washington, and was patented by him in the United States and Canade. Like practically all other useful mechanical appliances its invention was a result of necessity and the primary idea was to obtain a

An important Invention—The Hilke Lumber Stacker

FIR TIMBERS FIR FINISH

Fir Casing, Base, Interior Finish and Mouldings

RED CEDAR SHINGLES CEDAR BEVEL SIDING

E. H. HEAPS & CO., LIMITED

VANCOUVER, B.C.

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"Maple Leaf" Brand

Stitched Cotton Duck Belting

A trial Belt will convince you.
Write for prices and samples.

Excels all others in economy, strength, efficiency, and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply "**Maple Leaf**" belt, a light double leather, and a 6-ply rubber belt, showed that our "**Maple Leaf**" Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts Are the Best on the Market.

"MAPLE LEAF" BELT DRESSING is the best for all kinds of belts.

Dominion Belting Company, Limited

HAMILTON - ONTARIO

Branch: Montreal—Office 51 Duluth Building

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

D. C. CAMERON, President and General Manager.

means of cheaply piling lumber high. This necessity existed because of comparatively limited space upon which to carry a huge stock of air-drying cedar lumber.

At first glance it is really difficult to grasp the far reaching possibilities of Mr. Hilke's invention and it is doubtful if, even he clearly foresaw its entire effect upon yard economy until after he had constructed and placed in operation his first working piler.

The fact that the machine will save at least one half the cost of piling and unpiling lumber, as against the old and universally prevailing methods, is interesting and attractive, but it is doubtful if the sum of this saving, handsome as it is, will even approximately approach the total annual sum to the machine's credit, through cost reduction of team mileage, alley mileage, pile bases, pile roofing, etc.

The illustration exhibits the manner in which lumber is handled by the machine so clearly, that further description seems unnecessary, but it may be well to say that the lumber to be piled is lifted into the spaced carriers at the bottom and these convey the material over the top and down into the hands of the pilers who usually remove one end of a heavy plank or timber at a point well above the waist line swinging it around into piling position while permitting the carrier to support the other end.

By the time this is done the supporting carrier is low enough to permit removal well below the waist line and yet high enough to prevent stooping or straining on the part of the workman. The chains travel thirty or thirty-three and half feet per minute and deliver all sizes of lumber from 1-in x 4-in. to 4-in. x 24-in. at the rate of from 7,000 ft. to 20,000 ft. per hour.

A proof of the machine's efficiency is found in the fact that two good lumber pilers will remove 1-in. x 12-in. x 16-ft. or 2-in. x 12-in. x 16-ft. from the carriers and pile it accurately at the rate of 20,000 feet per hour, and do the work with ease and without hurry or any form of over exertion.

The machine is built to work on track, planked alleys, macadam, dirt or sawdust alleyways. It operates by electricity and the system of yard wiring recommended by the manufacturers is not only simple but surprisingly cheap. When operating on track, planked or macadam roads the machine is pulled around by the men who work it, but when working on dirt or sawdust roadways it is pulled around by a horse. These machines are built for piling lumber of any size or length and in addition to the standard line of lumber pilers the manufacturers are now bringing out a full line of timber pilers, car loaders and unloaders and special machines for elevating bar iron to any height desired.

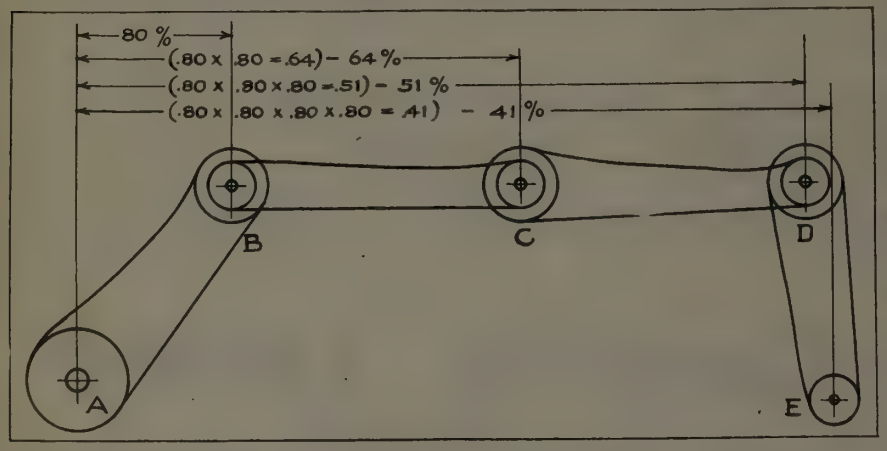
Catalogues can be obtained by writing to the manufacturers, The Hilke Stacker Company, No. 1 Broadway, New York City, N.Y.

Efficiency of Machine Drives

SPECIALLY CONTRIBUTED FOR THE CANADA LUMBERMAN—BY N. G. NEAR

The average man does not like to be bothered with small technicalities—little details. Wherever there is a small power loss he is prone to let it go and argue within himself that "it is too small to bother with." Such is usually the case with belt transmission, but I wish to show here that in many cases the apparently small losses in belt transmission amount to a whole lot in the end.

Take, for instance, such an arrangement as shown herewith, where A is the flywheel of an engine, B a main line shaft, C a secondary line shaft, D a countershaft and E the final driven machine. You no doubt know that a great deal of the power starting at A will be lost before



it gets through this mass of belting and shafting, but, where the efficiency of belt transmission is as high as 80 per cent. between each pair of shafts, it is a fact that only 41 per cent. of the power would come out at E provided all of the power were dispersed through four transmissions as drawn; and, this is not an extreme case. I have seen it time and again. The way we arrive at the overall efficiency is by multiplying 80 per cent. by itself four times, thus:

$$.80 \times .80 \times .80 \times .80 = .41$$

Now, to show the advantage of higher transmission efficiency as by the use of ball bearings, about which I wrote in the June 1st issue of the Canada Lumberman, let us assume a higher transmission efficiency, say, 90 per cent., which is a very conservative figure. We would then have:

$$.90 \times .90 \times .90 \times x.90 = .65$$

If there should be five pairs of shafts instead of four we would get the overall efficiency by multiplying 90 by itself five times; if six pairs, 6 times, etc. Anyway, we find that in this specific instance, with 90 per cent. efficiency instead of 80 per cent., a total of (.65 — .41 = .24) 24 per cent. of the engine power would be saved. At the low rate of one cent per horse power per hour, the saving effected by installing ball bearings and increasing the efficiency of each couple 10 per cent. would amount to $576 per year.

According to some recent tests made by Carl C. Thomas, Professor of Mechanical Engineering at John Hopkins University, there is a great difference in efficiency between plain bearings and ball bearings. He shows that where a temperature of 77 degrees F. is maintained, a plain babbitted bearing consumes from 3 to 4.5 times as much power as a ball bearing under the same conditions, the peripheral speed of the shaft in each instance ranging from 100 ft. per minute to 300 ft. per minute. Where a temperature of 100 degrees F. is maintained a plain bearing consumes from 3.6 to 4 times as much power as a ball bearing. These facts then show very clearly why it is often possible to make a once overloaded engine or motor pull more machines after installing ball bearings as in my June article.

Up to the present time there has been much discussion in technical papers concerning the advantages of direct motor drive over belted drive such as shown in the illustration. There is no doubt that direct drive has many advantages still, in the way of simplicity, neatness, continuity of service, etc., but there has been no appreciable increase in efficiency in motors in recent years, whereas with the advent of ball bearings in transmission service there has been a decided increase in efficiency. It is therefore difficult to state, off hand, which is preferable. Even with plain bearings, belt drive is often preferable and therefore, with ball bearings, belt drive would be even more preferable.

Before installing machinery of this kind, where either belted or direct drive may be used, it is best to give the matter pretty serious consideration. Look at it from every angle. Sometimes, where a certain machine is seldom used, and where it and its belted connections can be cut off by use of a clutch, or by simply throwing off the belt, it is most economical to use plain bearings. First cost would prohibit the use of the more expensive modern kind. Again, where one machine consumes considerable power it is advisable to use direct drive, but in the average woodworking plant where each machine consumes comparatively little power, belted drive with low friction bearings are still most economical.

Above all, if there is any doubt in your mind as to the best kind of drive, do not hesitate to pester the manufacturer with questions. Manufacturers usually enjoy answering questions, especially where prospective sales are in sight, and you can rest assured that a good, old, responsible firm will give you the right answer. When writing to manufacturers give them as much data as you have to submit. The more they know about your conditions the more accurate will be the answer.

C.P.R. Increasing Their Fire Protection Staff

The C. P. R. forestry branch are adding to their staff of fire inspectors. Three men have been assigned to the lines in British Columbia, and three additional men to the lines in Ontario, Quebec, Maine and New Brunswick. The men of the forest fire prevention branch of the company, in addition to collecting information to be used in fire claim cases, help to prevent the occurrence and the spread of fire by personally meeting sectionmen and other employees of the company, thus ensuring that the men are fully informed regarding the very strict instructions issued by the general manager relative to the reporting and extinguishing, by railway employees, of fires occuring along the right of way.

Camp Supplies

Evaporated apples are scarce and high and in their place we are offering a line of California Evaporated Peaches. This fruit is bright quality, a quite good grade being what is called Orchard run, consisting of Fancy Choice and some Standard.

They are packed in 50 lb. boxes and are an excellant substitute for apples. In the camps where they have been used the men like them much better than apples,—and then the price is so much lower, only seven and a quarter cents.

Let us send you a sample lot

H. P. Eckardt & Co.

Church St. & Esplanade :-: TORONTO

A Lumber Piling and Unpiling Machine

A Hilke 30 ft. PILER working in the yard of the Shevlin-Clarke Co., Limited, Fort Francis, Ontario.

This machine will pay for itself from one to six times per annum, all depending on the scope of its opportunities.

It reduces by half your cost of piling and unpiling lumber.

It saves half your cost of alley floors or roads.

It reduces by half your number of pile bases.

It cuts squarely in two your costs of roofing lumber.

It saves just half your yard space and this always means much even where land is very cheap, because it costs money and lots of it to haul lumber round a yard.

It takes lumber down from high or low piles with perfect freedom from breakage or injury.

It sets the pace for your men and helps them do much work with little labor.

It is as mobile as the men who operate it and when placed in front of a pile is instantly ready for work.

It removes at once and forever the need of using elevated tramways with their great first cost, impaired circulation and imperfect drying below their surface.

It is a maker for efficiency because it is itself so efficient that it naturally turns your mind toward other yard economies of which there are usually many never before observed.

Patented in the United States and Canada by H. C. Hilke.

Built by

The Hilke Stacker Company

No. 1 Broadway, New York ity, N. Y.

Let us send you a catalog.

CALIFORNIA
REDWOOD
HUMBOLT AIR-DRIED

Car Siding and Roofing

C L C S O

Pattern and Finishing Lumber

Weather, Fire and Rot Proof.

Makes the best TANK STAVES on earth.

Canada Lumber Sales Co., Limited

Dominion Express Building, 145 St. James St. :: MONTREAL

"The Redwood Pioneers of Canada"

WHY you should install the

Mahony Blower

System in your Planing Mill

Fifty per cent. higher efficiency than any other on the market to-day, uses ¼ less power, costs less to install, no cyclone required, eliminates back pressure on the fan.

I will undertake to increase the capacity of any system now installed 50 to 100% by the application of the Mahony Back Pressure valve on your fan, without using a scrap more of horse power.

YOU NEED this apparatus in your plant

Write to-day for prices

A. Mahony, 512 Wellington West, Toronto

Timber Concessions in the Province of Quebec

Notice is given by the government of the Province of Quebec that, on the 11th of August and on the 20th of October, 1914, permits to cut timber on over 8,000 square miles of Crown Lands will be offered at public auction.

The territory to be disposed of comprises some 1,200 square miles in the basins of rivers Ottawa, Harricana and Bell, in the Abitibi region ; 6,000 square miles in the Lake St. John northern region ; 350 square miles in the Lake St. John East agency ; 242 square miles in the Matapedia division.

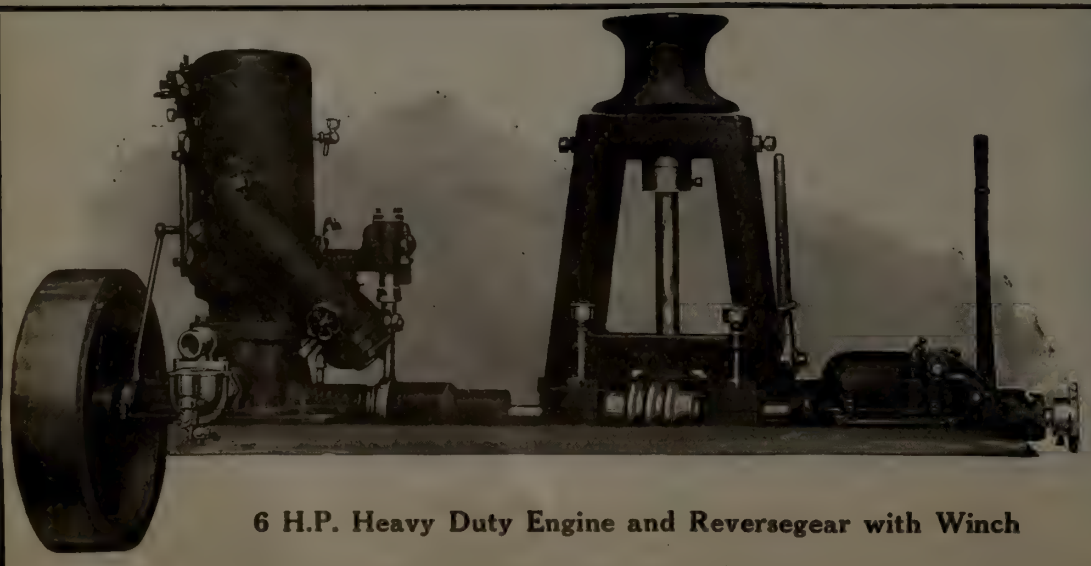
On the first date above mentioned, permits will be offered at ordinary conditions on some 3,000 square miles.

The timber grants advertised for the 20th of October, comprising the basins of three large rivers in the Lake St. John region with considerable water powers, will be subject to the obligation of manufacturing the wood into pulp or paper within the Province of Quebec.

For particulars, please apply to the Department of Lands and Forests, Quebec, Canada.

Elz. Uiville Dechene,
Deputy Minister of Lands & Forests.

Quebec, 11th April, 1914.



6 H.P. Heavy Duty Engine and Reversegear with Winch

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25 ft. punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 h.p.

Adams Launch & Engine Co.
Penetang, Ont.

If You Use Cross-Cut Saws You Should Have This Book

It contains valuable information on the "fitting" of Cross-cut Saws, shows the action of the Raker Tooth and explains how it leads to faster cutting. It also illustrates and describes the different popular types of Disston Cross-cut Saws.

It will aid you in selecting the proper style of tooth and saw for your particular work, for there is a Disston Cross-cut Saw to meet every condition. After reading this book you can better understand why Disston Saws are found in most of the lumber camps of the world and why they

Run Easiest, Cut Fastest and Last Longest.

Look for this brand

TRADE MARK

Reg. U.S. Patent Office

Henry Disston & Sons, Limited

Keystone Saw, Tool, Steel and File Works

TORONTO, CANADA

Branch at Vancouver, B.C.

Established 1840

Knight

Pony Lath Mill

This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

Size "S" Single Mill with 16-foot Carriage

Size Husk ... ... 3 feet by 6 feet 3 inches	Width of Carriages ... ... 33 inches
Diameter and Length Mandrel . 2 3/16 by 55 inches	Trucks ... ... 7-inch wheels and 1¼-inch axles
Size Drive Pulley ... ... 20 by 10 inches	Length Track ... ... 32, 40, 48 or 56 feet
Feed per Revolution of Saw ... ... 0 to 3¼ inches	Style and Opening of Blocks ... ... Cl-36 inches
Feed Belt ... ... 4-inch Gandy	Style Mill Dogs ... ... Pony Excelsior
Largest Diameter Saw ... ... 56 inches	Style Set Works ... ... No. 1 Single Ratchet
Length of Carriages ... ... 12, 16, 20 or 24 feet	

With each complete size "S" mill we furnish one saw, wrench, cant hook, feed belt, pulley with boxes for tightener and foundation bolts for husk.

THE KNIGHT MFG. CO., Canton, Ohio.

Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C.. E. Long Mfg. Co., Orillia, Ont.

OPPORTUNITIES

WE own and offer for sale on attractive terms a few especially well selected tracts of timber running from 50 million to one billion feet that are ready for immediate operation, having a good local demand at high prices.

The timber on the Pacific Coast is the last stand of the great forests. Well selected timber in British Columbia is the best investment on this Continent and offers especially attractive inducements for manufacturers.

For further particulars, address

A. C. Frost Company

Corn Exchange Bldg.

CHICAGO

LATH

Campbell - MacLaurin Lumber Co.

Limited

Board of Trade Building, MONTREAL

New **RAILS** Relaying

12 to 80 pounds per yard.

LOGGING CARS

Jno. J. Gartshore

58 Front St. West, Toronto

EDGINGS

Ontario

Campbell Brothers' sawmill, at Spencerville, Ont., was recently destroyed by fire, the loss amounting to $12,000.

The sawmill belonging to Jas. Cluffe, at Maxville, Ont., was recently destroyed by fire. There was no insurance.

The plant of the Consumers Lumber & Box Company, Grimsby, Ont., was recently destroyed by fire. The loss amounted to $25,000, and there was insurance to the amount of $12,000.

The Carlton Construction Company, Limited, Union Bank Building, Ottawa, Ont., are reported to be in the market for about 130,000 feet, B.M., of 6 x 8 in. to 12 x 26 ft., square timber.

Work in connection with the new woodworking factory of J. R. Eaton & Sons, Limited, Orillia, Ont., is progressing satisfactorily. The plant will cost $100,000. The foundations are already in.

The Oakville Basket & Veneer Company, Limited, has been incorporated with head office at Oakville and capital stock of $100,000. Those interested include J. M. Bullen, F. H. Hurley and R. G. Agnew.

Fire, starting from some unknown cause wiped out the East End stave mill at Strathroy, Ont., recently. The property is owned by James P. Pogue. It is believed the loss will amount to ten or twelve thousand dollars.

A fire occurred recently at Mr. Manley Chew's lumber yard, Midland, Ont. The loss amounting to $200,000. The principal losers were the H. H. Hettler Lumber Company, the owners of the mill, Mr. D. S. Pratt and Mr. J. G. Cane, Toronto, also the Georgian Bay Shook Mills.

The Wallaceburg Lumber Company, Limited, Wallaceburg, Ont., has been incorporated with capital stock of $40,000. Among those interested in the company are D. A. Gordon and D. G. Gordon, Wallaceburg, Ont. The company are given the power to build saw and planing mills and conduct a general lumber business.

J. R. Booth, Ottawa, Ont., has commenced construction work upon a new sulphite mill, to cost $35,000. The building will be two storeys, 98 x 50 ft., of reinforced concrete construction. Mr. Booth has also commenced the erection of a timber mill to cost $20,000, which will be one storey, 150 x 45 ft., of reinforced concrete.

The Riordon Pulp and Paper Company have made some extensive alterations at their sulphite mill at Merriton. The main building has been overhauled and the machinery has also been improved, additional screens having been installed. These alterations will increase the output capacity about 10 per cent. At Hawkesbury, the company have put up a new building, and installed another drying machine, thereby increasing the general production of the mill, which will have an output of just over 150 tons per day, while at Merriton the output is about 30 tons per day.

The S. E. Carss Lumber Company, Limited, Orillia, Ont., whose planing mill was destroyed by fire on May 30th, report that the destruction of the mill was complete, and the loss amounted to about $25,000, on which there was insurance for $11,000. The cause of the fire is not known. The company intend to build a modern mill during the present summer. The mill which was destroyed was used entirely for planing, resawing, etc., in transit. The company report that, had it not been that the wind was blowing from the west and a heavy rain falling, all the lumber in the yards and storage sheds, which extend for two blocks south of the mill, would also have been burned.

Eastern Canada

D. H. Pennington, Lyster, P.Q., has sold his saw mill to the Quebec & St. Maurice Industrial Company.

The new Price saw mills, employing 150 men, were opened at St. Gedeon, Lake St. Johns, P.Q., on June 18th.

The Chaleurs Bay Pulp & Paper Company has been incorporated with head office at Sherbrooke, P.Q., and capital stock of $100,000.

The Belgo-Canadian Pulp & Paper Company, Limited, Shawinigan Falls, P.Q., have awarded a contract for an extension to their paper mill.

Fire at Riversdale, Lunnenburg County, N.S., recently destroyed 300,000 feet of lumber, belonging to Nathan Veinot, mill owner and lumberman of that village. At one time the conflagration threatened the village.

Colin McKenzie, Victoria, Cumberland County, N.S., reports that the recent report to the effect that his portable sawmill had been destroyed by fire, was

incorrect. A large number of willing hands saved the mill from destruction by moving it out of the woods before the fire reached it.

Fred Demers and Company, Montreal, sash and door manufacturers, lumber dealers, etc., have been registered. The partners are F. Demers and J. H. A. Bohemier.

The sash and door factory of Jasmin and Cantin, Cartierville, P.Q., has been burned to the ground, the damage to buildings and machinery being estimated at $20,000. The insurance was $5,000. The factory will be rebuilt at once.

The factory of Paul Beaudry, balcony and stair manufacturer, Davidson Street, Montreal, has been destroyed by fire. In addition to the mill buildings and machinery many thousand feet of lumber were burned. The loss is estimated at $60,000.

R. & T. Ritchie, Aylmer, P.Q., who recently lost their sawmill by fire, have commenced work upon the erection of a new mill which will cost $30,000. The building will have a concrete foundation and will be of frame and brick veneer construction. Corrugated iron roofing will be used. The plant will be electrically lighted. The company will be in the market for woodworking machinery.

Chappell Bros., have disposed of their large lumber areas in Quebec to a Boston company formed under the name of the Nouvelle Lumber Company. The timber lands, which comprise some 113,000 acres, were acquired by Chappell Bros. three years ago, and were operated by them exclusively since then. The chance was offered this spring to dispose of the timber tracts on favorable terms, and the final transfer was made during Mr. R. R. Chappell's recent visit to Boston. The capitalization of the new company is placed at $500,000 preferred and $1,000,000 common stock.

Western Canada

The Acorn Lumber Company, Edmonds, B.C., are preparing plans for a new dry kiln and an addition to their sawmill.

The Regina Sash & Door Company, Limited, has been incorporated with head office at Regina and capital stock of $20,000.

The Barclay Shingle Mills Limited, have been incorporated with head office at Vancouver, B.C., and capital stock of $25,000.

The Valley Lumber Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of $50,000.

The H. J. Wells Lumber Company, Limited, has been incorporated with head office at Edmonton, Alta., and capital stock of $50,000.

The E. W. Whittington Lumber Company, Limited, has been incorporated with head office at Victoria, B.C., and capital stock of $75,000.

The North Burnaby Lumber Company, who operate near Burnaby Lake, B.C., will erect a new plant with a capacity of about 40,000 feet per day.

T. M. Michaels, Seattle, Wash., recently paid a visit to Prince Rupert, B.C. Mr. Michaels is considering a proposition for the erection of a mill and box factory at Prince Rupert.

The Guildford Island Lumber Company has been registered as an extra-provincial company to carry on business in British Columbia. The Provincial head office is at Vancouver and the home office is in Wilmington, Del.

The Sprague Lumber Company, Limited, Winnipeg, Man., has been incorporated to take over the business of D. E. Sprague. The capital is $2,000,000 and the directors are H. C. H. Sprague, H. D. Sinclair, D. D. Sprague, H. H. Dunwoody and A. C. Ferguson.

Over 115 square miles of timber limits along Seymour Inlet, B.C., and adjacent waters, containing over three billion feet of high grade cedar are being transferred to a syndicate of California and Denver capitalists, for $3,000,000, by W. M. Gilfoy of Calgary and his associates. It is reported that the new owners will begin logging operations at once and that they are planning to erect several mills.

J. S. Deschamps, Ex-Mayor of Rossland, B.C., intends to build a sawmill in the city of Nelson of about the same capacity as the mill he is now operating at China Creek. This has a capacity of 40,000 feet and employs about sixty men. While in Nelson a few days ago, Mr. Deschamps met W. A. Anstie, general manager of the Forest Mills Lumber Company, and made arrangements for securing the old mill site of the Yale-Columbia Lumber Company, which was burned out a few years ago. Three million feet of logs, now waiting there to be sawn, also figured in the deal and this will be the first supply for Mr. Deschamps' new mill. Building operations will be begun right away so that the mill can be ready for business at the beginning of the season. In addition to the three million feet of logs mentioned, several million feet are cut along Kootenay Lake and Mr. Deschamps expects to secure these. He has quantities of standing timber in the vicinity and will feed the mill from Kootenay Lake.

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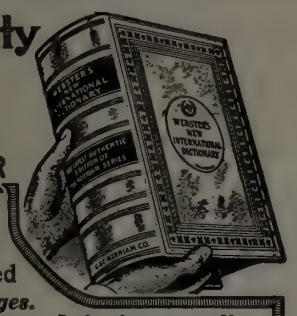

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Never use belts full width of the pulley face as a slight misalignment may cause part of the belt to run beyond the edge of the pulley and perhaps against a shifting finger or pulley flange, resulting in loss of power and frequently in a badly damaged belt.

A belt too narrow necessitates high tension to transmit the required power, thus causing excessive journal friction, consequent loss of production and the early destruction of the belt. Thin, wide belts give the best service working vertically. A thick, narrow vertical belt will not grip the pulley well.

Single vs. Double Belting.
Heavy vs. Light.

In general, single belts, if heavy enough to carry the load, should be used on small pulleys. A single belt should never be used where the width is more than 1 1/3 times the diameter of the smallest pulley. Where small diameter pulleys and the load would require an unusually wide single belt, it is advisable to substitute narrower pulleys and a narrower light double belt.

Double belts of medium or heavy weight should never be used on pulleys less than 12 inches in diameter, and it would be better to adopt 20 inches as the minimum diameter.

Belts too heavy for the load weave back and forth on the pulleys. This is best illustrated by a belt working under intermittent loads, the belt running straight while carrying the maximum or proper load, but showing a tendency to weave when the load is considerably reduced.

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Belting made from center stock leather (first quality belting) should be used to carry heavy loads or where the conditions are unusual. For certain light work or underloaded countershaft work, side stock or even shoulder stock belting (second quality) will often meet the requirements satisfactorily.

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This new swage invented by ourselves has all the good features of other swages plus some special patent features of its own. Those practical saw men who have used this swage pronounce it "The best yet."

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James R. Cameron, M. E., Manager **Patent Office, Factory & Workshops, 206 Simcoe St., Toronto**

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cuts		45 00
5/4 and 6/4 No. 1 cuts		52 00
8/4 No. 1 cuts		55 00
4/4 No. 2 cuts		36 00
5/4 and 6/4 No. 2 cuts		42 00
8/4 No. 2 cuts		45 00
4/4 No. 3 cuts		28 00
5/4 and 6/4 No. 3 cuts		32 00
8/4 No. 3 cuts		33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	34 00	36 00
1 x 10 and 12 mill cull stocks.		24 50
1-in. mill cull sidings		22 50
5/4 and 6/4 x 4 m.r., m.c. out.		26 00
5/4 and 6/4 x 5 m.r., m.c out.		26 00
5/4 and 6/4 x 6 m.r., m.c. out.		26 00
5/4 and 6/4 x 8 m.r., m.c. out.		26 00
5/4 and 6 /4x 10 m.r., m.c. out		33 00
5/4 and 6/4 x 12 m.r., m.c. out		34 00
2 x 10 common		26 00
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common.	25 00	26 00
1 x 12 inch box and common		27 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts		22 00
1-in. mill run Norway		23 00
2-in. mill run Norway		25 00
Norway, c. and cf. 1-in.	30 00	32 00
Norway, c. and cf. 1½-in.	33 00	35 00
Norway, c. and cf. 2-in.	33 00	35 00
Spruce mill culls		19 00
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.		20 00
1 x 6-in. x 9 to 16 ft.		22 00
1 x 8-in. x 9 to 16 ft.		22 00
1 x 10 and 12 in. x 9 to 16 ft.		24 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		22 00
1-in. No. 2, 6-ft. to 16-ft.		17 50
2 x 4 to 12, 10 and 16 ft.		23 50
2 x 4 to 12-in., 12 and 14 ft.		22 50
2x4 to 12-in., 18 ft.		25 00
2 x 4 to 12-in., 20 ft.		27 00
2 x 4 to 12-in., 22 ft.		26 00
2 x 4 to 12 in., 18 ft.		24 00
2 x 4 to 12-in., 24 ft.		30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		18 00
Clear in B. C. cedar, kiln dried.		50 00
Douglas Fir		
Dimension Timber up to 32 feet: 8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12 x16, 16x16, 16x18, 18x18, 20x 20, up to 32 ft.		33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.		34 00
10x20, up to 32 ft.		34 50
6x18, 8x18, up to 32 ft.		35 00
6x20, 8x20, up to 32 ft.		36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 00
1¼-in. No. 1 4-ft. pine lath		4 50
1½-in. No. 2 4-ft. lath		4 20
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath		3 50
X pine or cedar shingles		1 05
XX pine or cedar shingles		2 25
XXX pine or cedar shingles		3 20
XX B. C. cedar shingles		2 35
XXX 6 butts to 2-in.		3 20
XXXX 6 to 23-16-in.		3 40
XXXXX		3 70

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4.	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4.	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4.	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4.	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds.	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4.	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. & up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. & up	40 00	42 00
Pine good strips:		
1-in.	40 00	42 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	35 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing-strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	26 00	27 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	21 00	22 00
Pine, s.c. and bet., shorts, 1 x 6	21 00	22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00	25 00
Pine, box boards:.		
1" x 4" and up, 6'-11'	18 00	19 00
1"x 3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	14 00	16 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.		3 25
Red pine mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	65	70
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	75	80
By the dram, according to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$20 00	21 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better	
1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00
No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1¼ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 3½ in. and up wide	75 00
4 in., 8-in. and up wide	85 00
No. 2 Cuts	
1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 45 00
Common and Dressing Mill Run	
1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00
No. 1 Barn	
1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	21 00 29 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00
Mill Culls	
Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14-16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions	
2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50
No. 1 Common Boards	
4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	28 00
12 inch	28 00
Flooring	
4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50
Shiplap—Finished	
4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50
Siding	
6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50
Lath	
No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
FLOORING	
No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00
SHIPLAP	
Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50
BOARDS—ROUGH OR S. 1 S.	
No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00
SHINGLES	
XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25
LATH	
No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	52 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00

(Continued on page 70)

The Mark . *of Quality*

Power for the Portable Mill

Our throttling centre-crank engines, as illustrated below, are ideal for this purpose.

Because They're Simple and Because They're Solid They Stand Up

Self contained : Always in alignment.

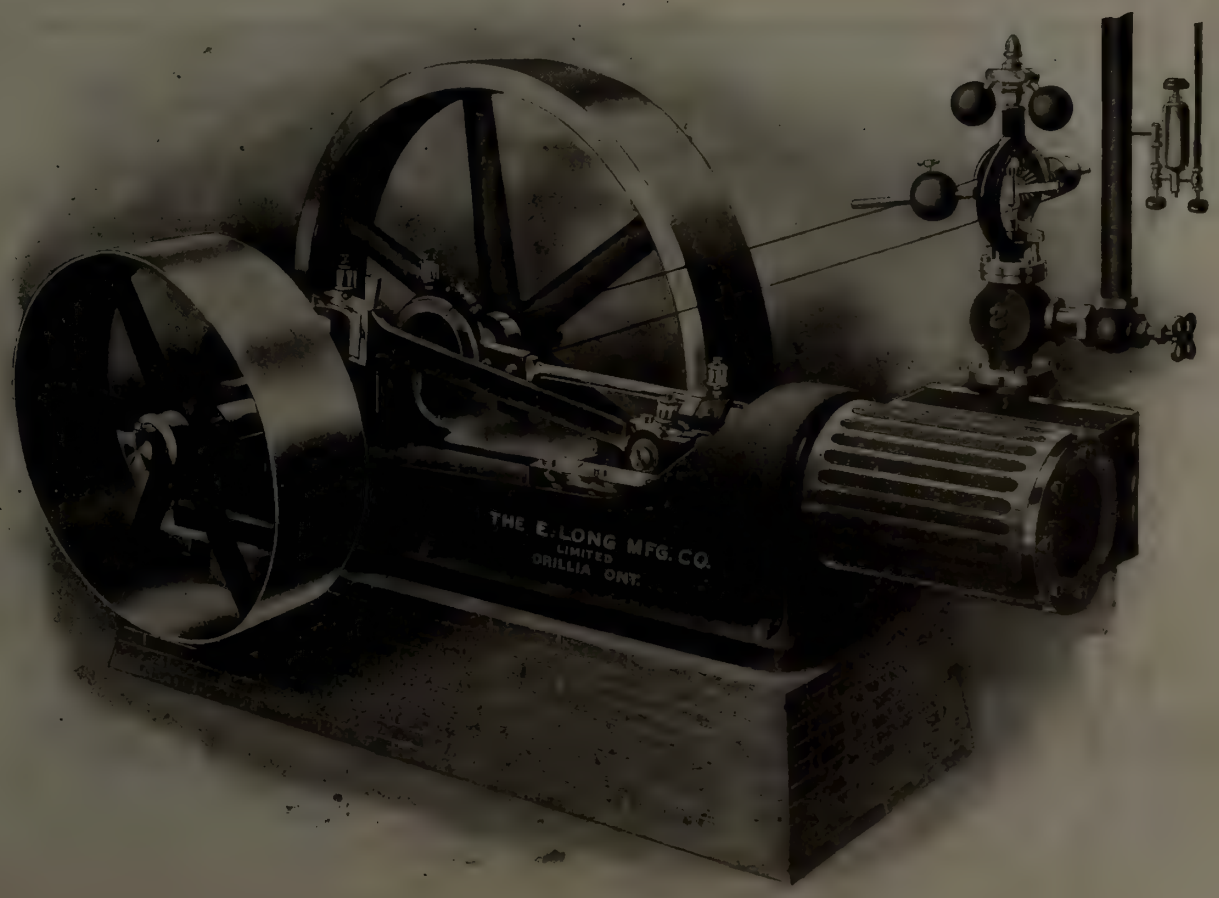
Write for the bulletin

The E. Long Manufacturing Co., Limited, Orillia, Canada

Robt. Hamilton & Co., Vancouver
Gorman, Clancey & Grindley, Limited, Calgary and Edmonton

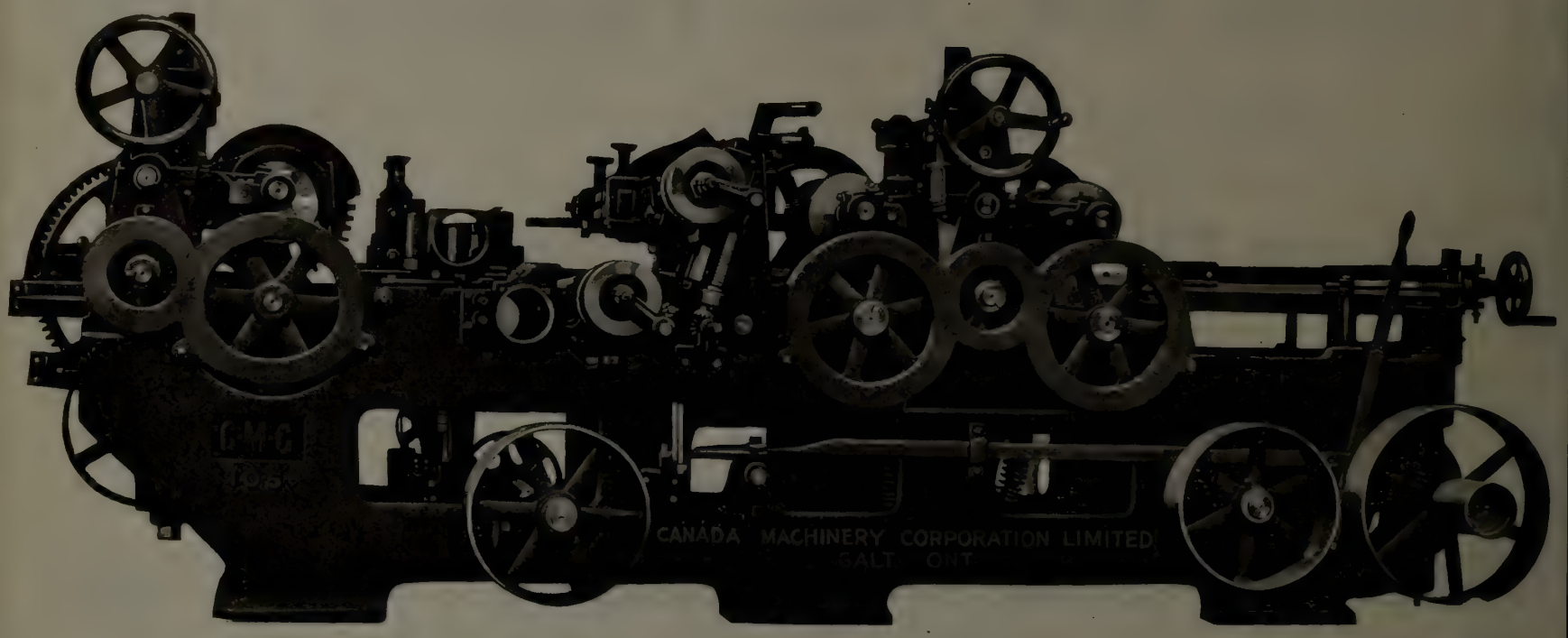
Represented by :

Stuart Machinery Co., Ltd., Winnipeg
Williams & Wilson Ltd., Montreal



See additional Ad on page 78

PLANER & C.M.C. MATCHER



15" Double Cylinder Planer and Matcher

Our No. 105 machine is a general purpose, medium heavy machine, especially suited for the general planing mill.

The feed range is from 45 to 100 feet per minute. Planes and matches 15" wide by 6" thick.

Full details and description contained in bulletin No. 105, sent on request.

Canada Machinery Corporation, Limited

Galt - Ontario

Largest Builders of Woodworking Machinery in Canada

This Type "E" Knife Grinder and Saw Gummer

is the smallest size we make. A practical up-to-date Bench Grinder at $65.00.

We make other grinders for sharpening knives up to 130-in. length.

Write for catalog showing the complete Rogers-Buffalo line.

SAMUEL C. ROGERS & CO.,

81 Lock Street :-: BUFFALO, N.Y.

DIXON'S

Solid Belt Dressing

These handy sticks, containing all the elements needed to keep a belt soft and pliable and adhesive can be rubbed on the belt while running. Their use keeps the belt in a condition of maximum service and longest life—cuts down the belting bill and prevents delays and shut-downs. Send for Booklet No. 239, "The Proper Care of Belts."

Made in JERSEY CITY, N. J., by the

JOSEPH DIXON CRUCIBLE CMOPANY

Established 1827

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.

TORONTO, CANADA

WIRE and WIRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, **Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.**

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooperage.

The Laidlaw Bale-Tie Co., Limited

Winnipeg — Harry F. Moulden & Son
HAMILTON, ONTARIO
Vancouver — George W. Laidlaw

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

Patented Nov. 29-1892
July 19-1910

HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

The Peter Hay Knife Co., Limited

GALT, ONTARIO

MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

Exhaust Systems

We design and install Exhausting Systems for Planing Mills, Shoe Factories, Pulp Mills, Grinding and Buffing Plants, or for any business where it is desired to exhaust foul air or convey materials by means of fans. We will be pleased to have enquiries.

Geo. W. Reed & Co., Ltd., Montreal

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	33 - 35	23 - 25	17 - 19
5/4 to 8/4	36 - 38	25 - 27	17 - 19
10/4 to 16/4	40 - 42	30 - 32	22 - 24

RED BIRCH			
4/4	44 - 46	30 - 32	18 - 20
5/4 to 8/4	46 - 48	32 - 34	20 - 22

SAP BIRCH			
4/4	38 - 40	26 - 28	20 - 22
5/4 and up	40 - 42	28 - 30	20 - 22

SOFT ELM			
4/4	38 - 40	27 - 29	18 - 20
5, 6 & 8/4	40 - 42	29 - 31	20 - 22

BASSWOOD			
4/4	36 - 38	27 - 29	19 - 21
Thicker	38 - 40	29 - 31	21 - 23

PLAIN OAK			
4/4	54 - 56	35 - 37	23 - 25
5/4 to 8/4	56 - 58	37 - 39	25 - 27

ASH, WHITE AND BROWN			
4/4	48 - 50	30 - 32	21 - 23
5/4 to 8/4	55 - 57	32 - 34	22 - 24
10/4 and up	64 - 66	44 - 46	24 - 26

BOSTON, MASS.	
White pine uppers, 1 to 2 in...	92 00 98 00
Selects, 1 to 2 inch	80 00 88 00

Fine common, 1 in.	68 00 70 00
Fine common, 1¼ to 2 in.	70 00 72 00
No. 1 Cuts 1 in.	55 00
No. 1 Cuts 1¼ to 2 in.	60 00 64 00
No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1¼ to 2 in.	48 00 50 00
Barn Boards, No. 1, 1 x 12	48 00 50 00
No. 1, 1 x 10	37 00 38 00
No. 1, 1 x 8	37 00
No. 2, 1 x 12	38 00 40 00
No. 2, 1 x 10	34 00 35 00
No. 2, 1 x 8	33 00 34 00
No. 3, 1 x 12	31 50 32 00
No. 3, 1 x 10	29 00 30 00
No. 3, 1 x 8	29 00
Canadian spruce boards	25 00
Spruce, 10 in. dimension	25 50 27 00
Spruce, 12 in. dimension	26 50 28 00
Spruce, 9 in.	24 50
Spruce, 8 in. and under dimen.	23 50 24 00
10 and 12 in. random lengths, 10 ft. and up	25 00 26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00 21 50

All other random lengths, 7-in. and under, 10 ft. and up	21 00 22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	22 50
1⅝-in. spruce laths	4 15 4 25
1½-in. spruce lath	3 75 3 80

New Brunswick Cedar Shingles	
Extras	3 50
Clears	2 90
Second clears	2 75
Clear whites	2 45
Extra 1s (Clear whites out)	1 50
Extra 1s (Clear whites in)	1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40 3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.	4 25
Red Cedar Perfection, 5 butts to 2¼	4 80
Washington 16-in. 5 butts to 2-in. extra red clear	3 35

If You Could Make a Safe, Legitimate Investment of $100 Bring You Back $200 in a Year's Time, Would You Do It?

We would and we think You would.

An example:—Mr. Louis J. Landmeir, engineer in the above plant, tells us that scientific treatment of this belt with Cling-Surface costs him only 90 cents per year. Then he goes on to say:

"Belt has had Cling-Surface treatment about 3 years. It is very pliable. No trouble with belt slipping. Never have to take up belt. Used various belt dressings but never had such success as with Cling-Surface."

Can you immagine how 90 cents could have been spent to better advantage?

Don't you think Cling-Surface worth investigating?

Give it a trial and you will be convinced.
We quote f.o.b. Toronto.

Cling-Surface Co

1021 Niagara St Buffalo N Y

New York Boston Chicago Denver
Atlanta Memphis Toronto Etc 74

Support Home Industries

The Canada Metal Co., Ltd.,
Manufacture in Canada—

Harris Heavy Pressure

"The babbitt metal without a fault"

The prime favorite with all engineers

The best babbitt for all general machinery bearings

Manufactured and Guaranteed by

Canada Metal Co., Limited

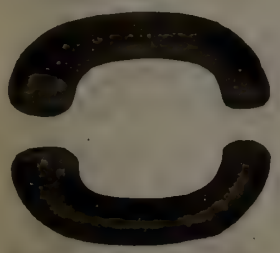
Head Office and Factory, Toronto, Ont.

Branch Factories: Montreal, Winnipeg

Order a Box From Our Nearest Factory

"AJAX" Loading Chain

WELD:



Sectional view showing comparative size of weld and chain.

Experience has taught us that a good chain cannot be made from cheap material. In Ajax chains you get the best steel obtainable and every weld guaranteed. Ajax chain is guaranteed to pull stiff before breaking.

MANUFACTURED ONLY BY

Standard Chain Company, Pittsburgh, Pa.

MONTREAL—Alexander Gibb, St. Nicholas Bldg. **WINNIPEG**—Bissett & Loucks
VANCOUVER—John Burns, 329 Railway St.

SHAVING EXHAUST FANS

for the

Planing Mill

The **Sheldon Shaving Exhaust Fan** is specially designed to give the best results in the Planing Mill, having a saving in power and speed of 25% to 40%.

Write for particulars

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

Messrs. Ross & Greig, 412 St. James St. Montreal, Que.
Messrs. Walker's Limited, 259 Stanley St. Winnipeg, Man.
Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.
Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.

Let Us Show You How You Can Make Real Money Selling

J-M ROOFINGS

Don't try to meet cut-throat competition—leave it far behind you by handling the roofings that know no rivals.

J-M Asbestos Roofing and J-M Regal Roofing are absolutely in a class by themselves. They represent a STANDARDIZED roofing service, backed by a five-million-dollar company with Service Branches everywhere and more than half a century's experience producing roofings of quality.

For these STANDARD goods you get STANDARD prices that pay you a worth-while profit. And with each customer's satisfaction you build up a roofing business that laughs at cut-price competition.

Only one J-M dealer in a town. Write our nearest Branch NOW for Special Proposition.

THE CANADIAN
H. W. JOHNS-MANVILLE CO., LIMITED

Manufacturers of Asbestos Pipe Covering; Packings; Brake Lining; Boiler Preservative; Fire Extinguishers; Cold Water Paint; etc.

TORONTO MONTREAL WINNIPEG VANCOUVER

2197

Morgan Machine Company

ROCHESTER, N. Y.

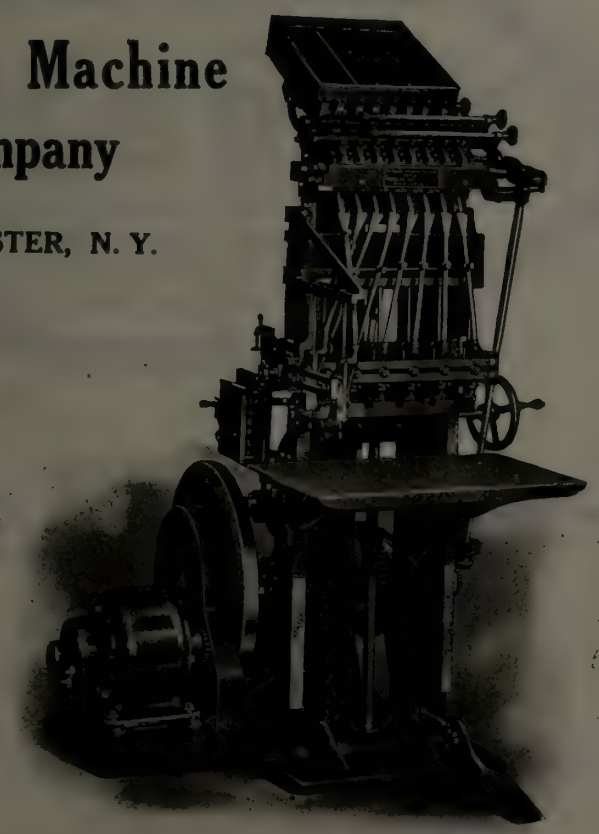
Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

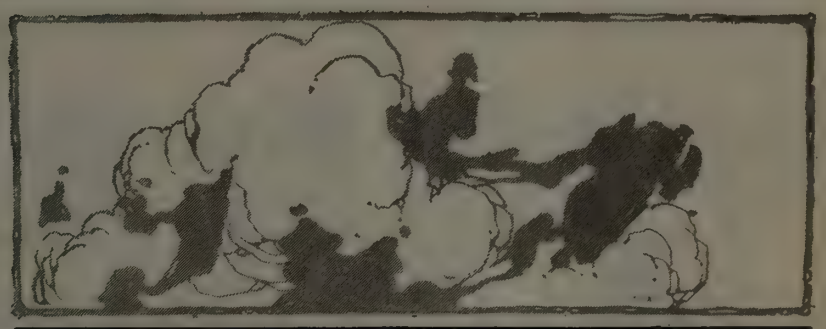
Box Board Matchers,

Box Board Printing Machines.



Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N.Y.



HORSELESS SKIDDING

Skidding with mechanical rehauls to return lines to the woods is becoming more and more popular. Greater speed and independence from weather conditions constitute the principal reasons for this :—

YOU WILL BE INTERESTED IN HEARING & SEEING WHAT OTHERS ARE DOING WITH CLYDE MECHANICAL REHAUL SKIDDERS. *Write us and we will arrange to Show you*

CLYDE IRON WORKS
DULUTH. U. S. A.

Are your horses of use to you?

This seems an absurd question—and the answer is always "Of course they are"—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy
A sure and speedy cure for all kinds of Colic

1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**

Are Your Horses in Good Condition?

Horses for all lumber work are subjected to the hardest hauling under the most severe conditions. They should therefore be as fit as all possible care and attention can make them.

In the Lumber Camp, Around the Mill, In the Yard

and wherever lumber has to be hauled the horses are always liable to a multitude of small injuries which if not attended to promptly may develop into lameness or disfigurement, thus reducing the working capacity of the horse and impairing its value from a sale standpoint.

You should always have handy and ready for use

Good Liniment

to reduce bruises, strains, soreness; allay pain and inflammation quickly, be an antiseptic dressing to a cut or burn, or to heal a wire cut, wound or laceration.

ABSORBINE

is an antiseptic healing preparation as well as a resolvent and a discutient. It will assist nature in bringing about a dissolution of the bunch, restore the circulation, gradually restoring the part to its normal condition.

It will produce permanent and complete results without blistering or removing the hair, and will leave no blemish. You can work the horse at the same time.

All enquiries on special cases answered without delay—full information and instruction on request. Absorbine $2.00 per bottle at dealers or express prepaid.

Manufactured only by

W. F. Young P. D. F.

424 Lymans Bldg. -:- MONTREAL, CANADA

Log-Handling Machinery

All our Loaders, Kickers and Canters are made with cylinders of the style shown in the cut.

Check Valves are provided in each end, and all piping between valve and cylinder is eliminated. These cylinders are extra heavy and very durable, and are absolutely guaranteed by us.

We carry in stock at all times a complete line of Log Deck Machinery—so we can always serve you promptly.

Shall we send our Catalogue?

William Hamilton Company

Peterborough - Ontario

WE CAN

DOUBLE

THE CAPACITY OF YOUR

DRY KILN

GRAND RAPIDS VENEER WORKS

Dry Kiln Service

MEANS TO YOU

A Practical Theory
Competent Engineering
Effective Organization
Years of Experience
Guaranteed Results

Grand Rapids Veneer Works

Grand Rapids,

Michigan

The **Old Town "Canvas" Canoe**

A Friend in Need is a Friend Indeed

DISTRIBUTORS:

Henry Morgan & Co., Montreal, Que.
Holt Renfrew & Co., Quebec, Que.
Hudsons Bay Company— Their various branches.
F. A. Kirkpatrick, 81 Summer St., St. John, N.B.
Grant-Holden-Graham, Ltd., Ottawa, Ont.
The T. Eaton Co., Ltd., Toronto, Ont.
Northern Canada Supply Co., Cobalt, Ont.
Cochrane Hardware Ltd., Sault Ste. Marie, Sudbury, North Bay, Ont.
J. Darch & Sons, London, Ont.
Rice Lewis & Son, Toronto, Ont.

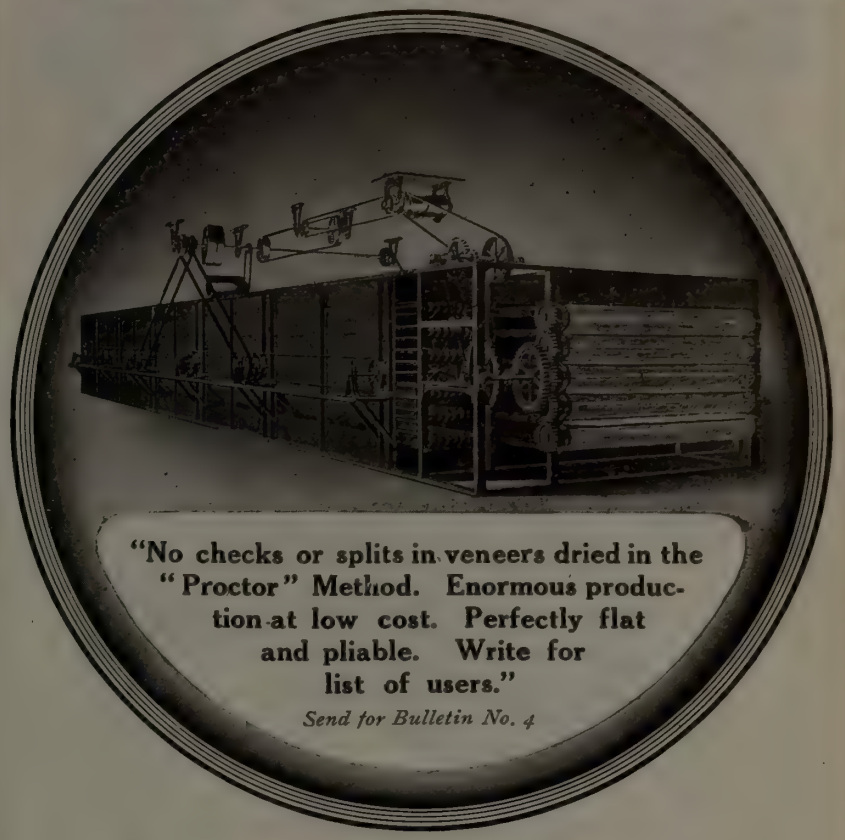
Agents wanted in unoccupied territory.

Photo taken by employee of Laurentide Co. Ltd., Grand Mere, P. Q. Their Supt., Forestry Division, states canoe damaged in Rapids, canvas held, braced up canoe and continued journey down St. Maurice River 70 miles. Used canoe balance of season and all following year.

F. M. DIXON

Canadian Representative: Beardmore Bldg., MONTREAL

"PROCTOR" VENEER DRYER



"No checks or splits in veneers dried in the "Proctor" Method. Enormous production at low cost. Perfectly flat and pliable. Write for list of users."

Send for Bulletin No. 4

THE PHILADELPHIA TEXTILE MACHINERY CO.
PHILADELPHIA, PA.

RUBBER GOODS FOR LUMBERMEN

Belting Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings "Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

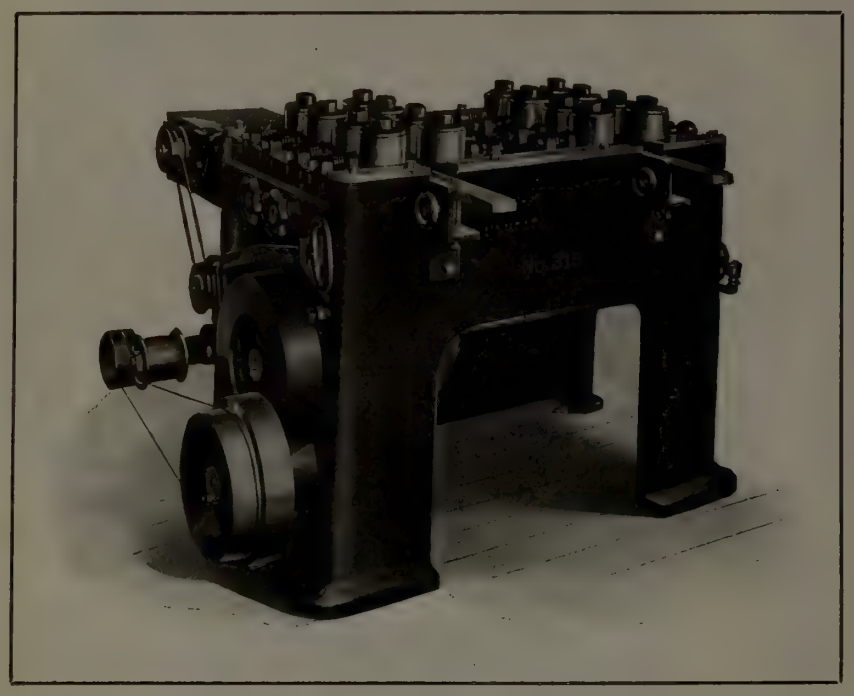
Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

Gutta Percha & Rubber, Limited

Successors to
The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

TORONTO MONTREAL WINNIPEG CALGARY VANCOUVER

Improved Box Board Matcher



16 driven feed rolls, 4⅛ in. in diameter, each one of which can be adjusted independent of all others.

4½ in. between centres of first and second pair; 5½ in. between centres of second and third pair (the cutters work between this pair) and 4¼ in. between centres of third and fourth pair.

This Matcher is compactly and rigidly constructed with every part readily accessible and the operators are close together when working.

Catalogue gladly furnished which illustrates and describes many other machines built expressly for Box Factories.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

LOW MAINTENANCE COST LOCOMOTIVES

The life of a locomotive depends upon the care taken in manufacturing. Care in manufacturing increases profits by decreasing cost of maintenance and repairs.

From their long experience in locomotive building, our engineers have learned what is necessary to increase the life and usefulness of this class of equipment. They are qualified to co-operate with you in selecting the locomotive best suited for your work. Let them help you.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

This engine is 13 ins. x 16 ins. and weighs 30 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

May we send you specifications

Canadian Locomotive Company, Limited, Kingston, Ont.

Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa, Deputy Minister.
December 20th, 1912.

The Genuine HOE Chisel-Tooth Saw

Special Flanged Shanks and Superior Bits for Hardwood

OVER 80,000 NOW IN USE IN ALL PARTS OF THE WORLD
HIGHEST QUALITY AVOID IMITATIONS

HOE HAS NO EQUAL

Write for Saw Catalogue to

R. HOE & CO. 504-520 Grand Street, **NEW YORK CITY**

Radcliff
Solid Tooth
Saws

Made by men who have made a special study of saw construction and steel tempering.

The steel in Radcliff saws is specially tempered to maintain a keen edge and high tension. It is sufficiently pliable to avoid breakage, yet is rigid enough to be economical in effort.

Write for our catalogue of solid and inserted tooth saws, mill supplies, etc.

Radcliff Saw Mfg. Company, Limited
TORONTO

The Mark

THE E. LONG MANUFACTURING CO. LIMITED
SAW MILL MACHINERY
ORILLIA, CANADA

of Quality

Efficiency Where Service is Hardest

The Stationary Cylinder Steam Nigger, shown below, is a real PRODUCING machine.

The quick, positive action will please the sawyer.

Its rigidity and the absence of leaking steam joints will please the millwright.

Built in eight sizes.

Our catalogue—yours for the asking—tells why.

The E. Long Mfg. Co.
Limited,
Orillia, Canada

REPRESENTED BY:

Robt. Hamilton & Co., - Vancouver

Gorman, Clancey & Grindley, Limited, Calgary and Edmonton.

Stuart Machinery Co., Ltd., - Winnipeg

Williams & Wilson Ltd., - - Montreal

See ad. on page 67.

THE WATEROUS PORTABLE SAWMILL

What Users Say About It—

"Your mill is the best I have ever had."

"Can't be beat."

"If I was going to buy a mill to-morrow it would be a Waterous."

"My No. 0 Mill is capable of sawing 20 to 22 thousand a day."

"I'll back the mill against all the Riding Mountain permits."

"Always in shape for any kind of timber."

"This mill is O.K. For a steady runner you have them all beat."

"There is no mill I ever saw that you can handle so quick as the Waterous make."

"As good as the day it came out of the shop."

"We can cut 10 to 12 thousand feet a day and only four men operating."

"The carriage has no equal."

What We Say About It—

Saw Frame is of 9½ in. x 5 in. Red Pine, 3 ft. 11 in. wide, 7 ft. 11 in. long. Saw mandrel 2⅞ in. diameter by 6 ft. 8⅛ in. long runs in three self-oiling, adjustable capped and babbitted bearings; one set close to the saw—the others, one on each side of the driving pulley. Saw collars 5½ in. diameter, saws are any size up to and including 60 in. diameter, driving pulley 20 in x 12 in. Our direct acting friction feed works are a feature of this rig. They combine the flexibility and smoothness of working of the variable friction feed with a positive, powerful action impossible to obtain in the latter. Fittings include: 15 in. Wheel Splitter, Turn Down Timber Gauge, Waterous No. 0 Safety Saw Guide.

Saw Carriage is 16 ft. 11 in. long, made with knee opening from 24 in. to 40 in. will handle logs up to 32 ft. in length. Timbers of Red Pine, 6 in. x 6 in. Logseats of 6 in. steel girder, knees of cast iron, extra high, with rack cast solid. Set shaft, 16 ft. long is 1 15/16 in. diameter. Regular Fit-Dogs, Waterous Overhead Ratchet Setworks, Spring Receder, Brake Wheel and Lever, also carriage trucks underneath logseat consisting of 1 15/16 in. steel axles and 9 in. wheels. 55 feet "V" and flat track are supplied. Carriages can be driven by rack or cable fed as desired.

Full Description of Complete Portable Outfit—Bulletin No. 100.

The Waterous Engine Works Co., Ltd.

Brantford, Canada

Vancouver, B. C.—H. B. Gilmour. **Winnipeg, Man.**

"FROST KING" METAL

$5,000,000.00
worth of mixed metal sold annually.

Our thirty five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock this, write us and we will take pleasure in making you a shipment of a 25 lb. box.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

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WEST TORONTO

MANUFACTURERS OF

Staved Columns
Veneered Doors
Newel Posts
Sashes - Flooring
Trim
Pine Doors and Frames
Turned Newel Posts and Balusters
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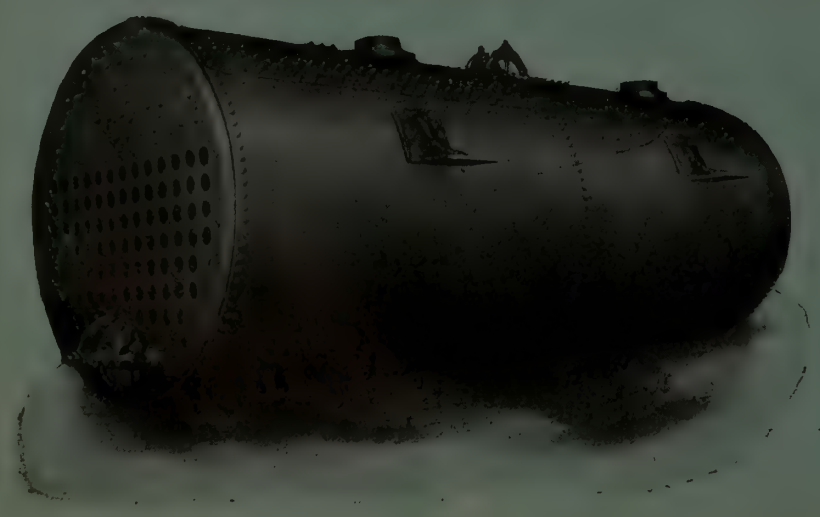
General Mill Supplies **MONTREAL**



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"INGLI" boilers are the product of over 50 years' experience and study combined with the most modern equipment for boiler making.

"INGLI" boilers are made in every type and all sizes.

Let us quote on your requirements.

The John Inglis Co., Ltd.

Engineers and Boilermakers

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Montreal Representative—A. Angstrom, 509 Canadian Express Building

Vol. 34 Toronto, July 15, 1914 No. 14

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
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are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.

Electric-Welded Boom Chain

25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Skefko "S. K. F." Ball Bearing

Automatically Self-Aligning

"Ball Bearings in Woodworking Plants," on page 48 of the June 1st Canada Lumberman, gives in a very clear manner some of the advantages of Bal Bearings for power shafting.

In the case of shafting which is not properly lined up or quickly gets out of alignment, the ordinary ball bearing is little if any better than a plain bearing.

The Skefko "S.K.F." Double Ball Bearing is automatically Self Aligning and will operate as efficiently under the worst conditions as if the shafting was in proper conditions.

The perfect operation of Skefko S.K.F. Ball Bearings under conditions which would put every other bearing out of business is due to the spherically ground outer raceway of the bearing. Note how the bearing acts like a ball and socket joint.

Put your plant on the most efficient basis.
Install Skefko "S. K. F." Bearings.

The Canadian Fairbanks-Morse Co.
Limited

Montreal, St. John, Quebec, Ottawa, Toronto, Hamilton, Ft. William, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Victoria.

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"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

STITCHED CANVAS BELTING
THE "CAMELATA" BELTING
REGISTERED
LINEN FIRE HOSE
Write for Booklet

Stocks carried by The A. R. Williams Machinery Co., Limited,
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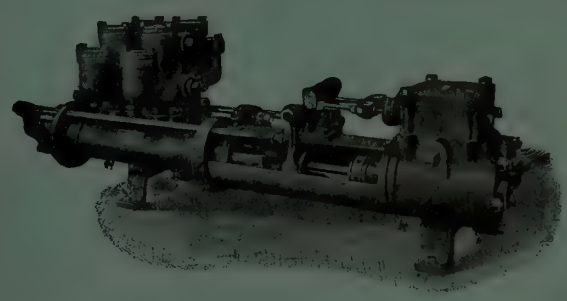
Our Aim is PERFECTION

Give us a trial when next in the market



The Smart-Turner Machine Co.,
Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?
WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers, page 62

Lumber - Lath Shingles

¶ Our two large mills are now in operation sawing the finest of Spruce and Pine Lumber, Spruce Lath and Cedar Shingles.

¶ A large assortment of dry lumber always in hand on our yards, to fill orders wanted for quick shipment.

¶ Our new and up-to-date electrically driven planing and resawing mill is now running and turning out first class work. We can fill orders for either rough or dressed lumber. Cost of dressing is saved in freight.

¶ We manufacture the "Beaver Brand" White Cedar Shingles, full count; every bundle is marked "250 shingles" and bound with iron bands; no more strings and broken bunches.

¶ Mills and yards located at Bathurst, N.B., on the beautiful Bathurst Harbor. Shipments can be made by schooner and steamer right from the Company docks to any port in the world, and also by rail to any part of Canada or the United States. Intercolonial Railway tracks and sidings in our yards, with trackage room for 50 cars on our own premises.

¶ Wire, write or 'phone your orders, and ask for our monthly stock list of lumber for sale and list showing cost of dressing.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada

VIEW OF OUR MILL AND BOOMS

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Manufacturers of

Lumber, Lath and Dimension Timber

Planing Mill

Dry Kiln

Norway Spruce White Pine

James G. Cane & Co.

Prices right
411 McKinnon Building
TORONTO, ONT.

Yellow Pine Timber

And Lumber Rough or Dressed
Car Material and Long Timbers
a Specialty

PROMPT SHIPMENTS

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Lisman, Ala. and Cincinnati, Ohio

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Manufacturers of . . . . . **YELLOW PINE LUMBER**

Mills :—
Selma, La.
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Waukegan, Tex.
Buena Vista, Ark.

Long Leaf Timbers,
Short Leaf Finish
and
Railroad Material

Send your inquiries and orders to :—

General Sales Office
Suite, 1220 Chemical Building, ST. LOUIS, Mo.

President and General Manager D. C. CAMERON, Winnipeg
Assistant General Manager WM. ROBERTSON, Vancouver
Secretary-Treasurer, WILSON BELL, Winnipeg

The Rat Portage Lumber Co. Ltd.

Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

Spruce
White Pine
Banksian Pine
Birch

Get our stock list and prices.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, Portland, Maine

Now Cutting Hemlock at Longford

Let us know your requirements on bill timbers

B. C. Shingles in transit

Birch at South River:

1 x 4 and up	Dead Cull Birch	11,300 ft.
1 x 4 and up	No. 2 and No. 3 Com. Birch	270,240 ft.
1 x 4 and up	No. 1 Birch	225,345 ft.
5/4 x 4 and up	No. 1 C. and B. (30% No. 1 Com.)	95,300 ft.
8/4 x 6 and up	1st and 2nd (20% No. 1 Com.)	62,900 ft.
10/4 x 6 and up	1st and 2nd (5% No. 1 Com.)	13,350 ft.
1 x 4 and up	Log Run Maple	33,400 ft.
1 x 4 and up	" " Ash	4,200 ft.
1 x 4 and up	" " Basswood	4,700 ft.
1 x 4 and up	" " Elm	22,200 ft.

The Long Lumber Co.

Hamilton, Ont.

You will not be among the "also rans" if you rely on

Are You Losing

in the race for business supremacy which is being run every day?

If you take the field relying on inferior lumber to build up your business, you stand as much chance of realizing your ambition as a man entering a big race ill-trained and in bad condition.

HOCKEN'S

HEMLOCK, Pine and Hardwood

The soundest investment on the lumber market.

Hocken Lumber Company, Limited

Otter Lake Station, Ontario

TRADE T MARK (REGISTERED)

DRY WHITE PINE

MILL RUN (Boxout)

5/4 x 7 up 12/16	5/4 x 4/7	12/16
6/4 x 7 up 12/16	6/4 x 4/7	12/16
8/4 x 7 up 12/16	5/4 x 4 up	6/11
12/4 x 7 up 12/16	6/4 x 4 up	6/11

Send us your enquiries.

Watson & Todd, Ltd., Ottawa, Ont.

Wholesale Lumber — Car and Cargo Shipments

JOHN M. DIVER

DETROIT, MICH.

"Everything in Lumber"

High Grade Thoroughly Dry White Oak

4,000 ft. 10/4, No. 1 Com. and better. 22,000 ft. 12/4, No. 1 Com. and better
4000 ft. 16/4, No. 1 Com. and better.

Nice Soft Dry Poplar—Good widths and lengths

70,000 ft. 4/4, No. 2 Common — 24,000 ft. 4/4, Selects and Saps
36,000 ft. 4/4, No. 1 Common — 48,000 ft. 4/4, F. and S.

I offer the above at attractive prices.

Special Bills Cut to Order. Write for prices

Timber for R. R. Construction and Commercial Purposes, a Specialty.

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The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

Fraser Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

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Established 1873

GILLIES BROS.

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Mills and Head Office BRAESIDE, ONT.

Manufacturers of

WHITE PINE

RED PINE — SPRUCE

New York City: Guy E. Robinson, 1123 Broadway

White Pine, Red Pine
Spruce

Lumber

Cedar Shingles
Lath

Our Saw Mills and Planing Mills Are Now Running

BARTRAM BROTHERS, LIMITED

OTTAWA, ONT.

Rail, Schooner and Steamship Deliveries

Bromley can submit attractive prices.

Real choice red and white pine stock.

Odd lots go at bargain prices.

Mississaga reserve timber—my stock.

Largest orders filled promptly.

Every board carefully graded.

You should get my wholesale prices.

William H. Bromley

Pembroke
Ontario
Canada

Quincy Adams Lumber Co., Limited

MANUFACTURERS OF

White Pine, Birch, Spruce and Hemlock

Special Price for Quick Shipment:

4/4 No. 1 Common Birch, Dry.
8/4 - 10/4 - 12/14 No. 1 Com. and Bet. Birch.
1 x 5 Merchantable Spruce, Dry.
2 x 5 Merchantable Spruce, Dry.
6 x 6 to 12 x 12 Merchantable Spruce, Dry.

Toronto, Canada
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Cor. King & Yonge

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Trafalgar Building, Ottawa, Ont.

OFFER

DRY—3 x 7 and up SHAKY WHITE PINE, quality equal to First Deal Inspection.

DRY—1″ and 5/4″ FINE DRESSING to CLEAR SPRUCE.

I WANT YOUR ORDERS

and solicit your inquiries for

PINE, SPRUCE, HEMLOCK, HARDWOODS, LATH

Deal with me and you will be satisfied every time.

C. A. SPENCER

Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles

Eastern Townships Bank Building, MONTREAL, Quebec

THE
FESSERTON TIMBER CO.
LIMITED

Manufacturers of
Pine, Hemlock, Spruce & Hardwoods
WE CAN
Dress, Match, Size and Resaw
at Fesserton

Hemlock and Pine Timbers a Specialty

15 Toronto Street, TORONTO

Casey-Shaw Lumber Co.
Limited

SUDBURY, ONT.

Manufacturers of

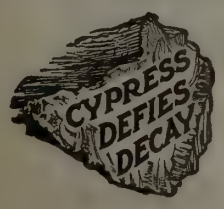
Lumber and Lath,
Planing Mill Work

General Office, Sudbury, Ont.

Our Mills Produce and We Market as Much

GENUINE LOUISIANA RED CYPRESS

As All Other Concerns Combined



250,000,000 feet constantly in stock insures filling any reasonable order promptly.
Our Canadian trade is constantly increasing and we are always striving to merit a still larger increase.

Our salaried salesmen receive credit for mail orders. Try us.

LOUISIANA RED CYPRESS COMPANY

Hibernia Building **New Orleans, La.**

MARITIME PROVINCES

Fraser Limited

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Donald Fraser & Sons, Limited
Cabano, P. Q.

Fraser Lumber Co., Limited
Plaster Rock, N. B.

F & M Lumber Co., Limited
Whitworth, P. Q.

MANUFACTURERS OF

Spruce Lumber
Rough and Finished

Shingles, Lath, Piano Sounding Board Stock, etc.

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Chatham, New Brunswick, Canada

View of yard and mill—J. B. Snowball Co., Ltd., Chatham, N.B.

—Manufacturers of—

Spruce, Pine, Hemlock, Hardwood, Lumber, Cedar Shingles and Laths

Mills—Chatham, Tracadie, Millerton. We solicit your enquiries.

We invite correspondence re

"Dalhousie" Brand

N. B. Cedar Shingles *of all grades*

Special Prices for shipment to

All Ontario Points

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick

Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto

If You Need a Position

a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.
The rates are most reasonable, write us.

Canada Lumberman and Woodworker, Toronto

Edward Partington

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Head Office, St. John, N.B.

Mills: St. John, N.B. Blackville, N.B. Marysville, N.B.

Manufacturers of

Bleached Sulphite Pulp

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Hardwoods

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13 Foot and 16 Foot

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Saw Mill and Novelty Works. All kinds of Hard and Softwood Lumber. Dimension Stock in Beech, Maple and Birch. Mattress and Cot Frames, Etc. *Send me your requirements, I can furnish you stock that will please.*

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White Pine, Norway Yellow Pine, Hemlock Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties. Yellow Pine Timber a Specialty, Interior Trim Mill Work.

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Write us for particulars and prices

Superior Mfg. Co., Ltd.

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Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

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Watchman's Portable CLOCKS

We are the only MANUFACTURERS in America

WRITE US FOR DETAILS

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Good Grades — **Right Prices** — **Prompt Shipments**

WE HAVE A FULL LINE IN ALL

Canadian Hardwoods

All thickness, 4/4 to 16/4.

ALSO A FULL LINE OF

Jack Pine—1" and 2"

SPECIAL FOR QUICK SHIPMENT:

3	cars	6/4,	No. 1	Com. & Betr.	Hard Maple	(winter sawn)
3	"	8/4,	No. 1	"	"	"
3	"	12/4,	No. 1	"	"	"
2	"	16/4,	No. 1	"	"	"
5	"	4/4,	No. 1	"	"	Birch
2	"	4/4,	No. 2	"	"	"
2	"	6/4,	No. 2	"	"	"
5	"	8/4,	No. 1	"	"	"
2	"	12/4,	No. 1	"	"	"
3	"	16/4,	No. 1	"	"	"
10	"	4/4,	Hardwood Crating Culls			
2	"		Hardwood Heart Squares			
4	"	4/4,	No. 2	Com. & Betr.	Basswood	
4	"	4/4,	No. 2	"	"	Elm
1	"	8/4,	No. 1	"	"	"
2	"	4/4,	No. 2	"	"	Black Ash

Let us quote you on any of the above. Prices will be low if for prompt shipment.

National Hardwood Grading Rules.

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Manufacturers and Strictly Wholesale Dealers in Lumber

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The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring, Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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LIMITED

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Sarnia

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(La Cie Industrielle de Rimouski, Ltee.)

Dressing of wood in transit on the Intercolonial Railway.

SPECIALTIES

Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

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Pine and Hardwood

Lumber

Lath and Shingles

North Tonawanda, N. Y.

Individuality and Experience Count

The experienced individual gives close attention, knowledge and aggressive interest. He will render you better and cheaper service than the hastily built force of a corporation. Each of my men has learned in the hard school of long actual experience. Try me.

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Austin & Nicholson
Chapleau, Ontario
Rough and Dressed Lumber and Lath
Dressing and Matching in Car Lots a Specialty

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CHOICE
Southern Hardwoods
Cypress, Kiln Dried North Carolina Pine
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Yard at Prison Point
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in any region—
at any time—
at reasonable prices.

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Planing of all kinds done by carload. Railroad Switch in connection with mill. All classes of building material, lime and cement for sale.
ALPHONSE TESSIER, Builder & Contractor
PENETANGUISHENE, ONTARIO

"Well Bought is Half Sold"

We Offer the Following Special Lines—
For Quick Sale

2 Cars	4 x 4 to 6 x 6	Sound Cedar Squares
100,000 Ft.	5/4	1st and 2nd Basswood
2,500 "	8/4	" " "
2,500 "	16/4	" " "
12,000 "	8/4	1st and 2nd Soft Elm
17,000 "	4/4	No. 1 C. & B. Soft Elm
22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8 to 16"—10 to 16 ft.	1st and 2nd White Ash
13,000 "	2 x 6 and up—10 to 16 ft.	No. 1 C. & B. White Ash

Hardwoods Thoroughly Dry
Your Inquiries Will Have Prompt Attention

Graves, Bigwood & Co.

MANUFACTURERS OF

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1026-32 Traders Bank Bldg, **Toronto, Ont.**

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B. C. Timber Lands
Located on three New Railroads { G. T. P. C. N. R. P. G. E.
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Quick Shipments
Gulf Cypress
N. Carolina Pine
Long Leaf
Timber
From our wharves in Portland, Maine
Wilson Lumber Co.
Portland, Me.

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OTTAWA — WHOLESALE — CANADA

OAK — FIR — WHITE PINE

Specialty --- Dimension Timber

HEMLOCK — YELLOW PINE — NORWAY PINE

Lumber
Lath
Shingles

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NORTH PACIFIC LUMBER CO., Limited
MILLS AT - - BARNET, B.C.

TIES
POLES
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ESTABLISHED 1855

THE McGIBBON LUMBER CO.
OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

NOTICE TO LUMBER MANUFACTURERS

Why demand the highest possible efficiency in

SAWMILL MACHINERY

And remain satisfied on your drive with the

ANTIQUATED HORSE-HEADWORKS

A 20th Century Mill Demands a 20th Century Drive

The Shaw Motor Headworks is the only 20th Century method of towing logs. Try one and you will acknowledge this.

For full particulars write

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Manufacturers of

Lumber, Lath and Shingles

Mills at Victoria Harbor, Ont.

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125 M. ft. 2 x 6 in. Mill Run Clear Cut.
150 M. ft. 2 x 8 in. Mill Run Clear Cut.
100 M. ft. 2 x 10 in. Mill Run Clear Cut.
1 x 4, 5, 6 and 8 in. piled separately.
1 in., 1½ in. and 2 in. Clear and Clear Face.

SPRUCE

2 x 6 in., 12, 14 and 16 ft., good dry stock
8 x 8 in., 12, 14 and 16 ft., good dry stock

Leak & Company, Limited

18 Aberdeen Chambers, TORONTO

JOHN DONOGH & CO.

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HEMLOCK SPRUCE

Dry stock in all sizes. *Quick shipments.*

1205 TRADERS BANK BUILDING, TORONTO

MEMPHIS VENEER & LUMBER CO.

Manufacturers: Honduras Mahogany and Southern Hardwood Lumber

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Mahogany, Quartered and Plain Oak and Quartered Red Gum

MEMPHIS - - - TENN.

JAMES E. STARK LUMBER CO.

Manufacturers: Quartered and Plain Oak

ASH

Poplar and Cypress **A large stock of Ash continually on hand**

MEMPHIS - - - TENN.

FRANK H. HARRIS LUMBER CO., LTD.

Sales Agents, 32 CHURCH STREET, TORONTO, ONT.

WHOLESALERS: Hardwoods, Oak Flooring, Chestnut, Walnut. Yellow Pine and B. C. Shingles Always in Transit.

Mixed Cars

Promptly Shipped

SEND US A LIST OF YOUR REQUIREMENTS AND WE WILL QUOTE AN ATTRACTIVE PRICE.

Oliver Lumber Co.

of Toronto Limited

Confederation Life Building

We Specialize in

PILING

Always on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet.

Wanted 1 in. and 2 in. Hemlock and Spruce. 1 in. Cull Hardwood.

WANTED—Contractors to take out piles during the summer months

ARTHUR N. DUDLEY

Lumber, Lath and Shingles

109 Stair Building Toronto **Phone M 6368**

FOR SALE

Bone Dry Stock

129,000 ft. 1 x 4, 5, 7" Mill Run Red Pine, 44% 4", 41% 5", 15% 7".
120,000 ft. 1 x 6 Mill Run Red Pine.
42,000 ft. 1 x 4, 6/11 ft. Com. and Drsg. White Pine.

Write us before ordering

The Elgie & Jarvis Lumber Co., Ltd.

18 Toronto Street, **TORONTO, ONT.**

Our Mills now ready to cut

HEMLOCK TIMBER

up to 12 x 12 — 24

We have on hand a full line of

Hemlock Lumber, Ties & Post

Cut This Season

Prompt Delivery guaranteed. **Write, wire or phone for quotations.**

SPEARS & LAUDER

Manufacturers & Wholesale Dealers
501 Kent Bldg., TORONTO

QUEBEC

J. Burstall & Company

Timber and Lumber Merchants

Shippers of All Kinds of Lumber and Timber

Head Office, Quebec, Que.

Branch:
Montreal—Board of Trade Bldg.

J. Burstall & Company, Ltd.
57 Gracechurch St. E. C., London, England

A Typical Logging Scene in Fassett, Que.

When You Want Lumber From Such Logs

as these, we have the stock ready for you. Quality and service is the keynote of our success and by devoting our energy to the selling of Soft and Hardwoods we are able to give you attention that insures the acme of satisfaction. We are open to contract for our

Hardwoods and Soft Woods

and can handle any contract for Special Bills.

Our new mill commenced operating in January, and is now running double tower.

Fassett Lumber Company, Limited

Fassett, Que.

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE SOLICITED

Mills at:

St. Pacome, Que., Canada

On I. C. Ry. 75 Miles East of Quebec City

MONTREAL

The Saw-Mill Owners Sales Co.
Representing 22 Mills - 6 Branches
What about a mixed car of mouldings, turnings, doors with shingles and sidings.
Send for our latest catalogue.
It will pay you better than making them yourself.
Lumber of all kinds.
Your correspondence solicited.
Head Office: Coristine Bldg., MONTREAL

Everything in Lumber
Wholesale and Retail
Write or wire us for your requirements
The McLennan Lumber Co.
Limited
Montreal, Canada

Mason, Gordon & Co. 80 St. Francois Xavier Street, **Montreal, Que.**
Everything in Timber
Car and Cargo lots only
Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak
Write, Wire or 'Phone for Prices - Western Office:—Pacific Building, VANCOUVER, B. C.

Charlemagne & Lac Ouareau Lumber Co.
Mills: Charlemagne, Montcalm, St. Adele
The Grés Falls Company
Mills: Three Rivers and Cap Madelaine
St. Gabriel Lumber Co., Limited
Mill: St. Gabriel de Brandon
Head Office: 524 Board of Trade, Montreal, P.Q.
Manufacturers of
Spruce and Pine Lumber and Ground Wood Pulp

The EAGLE LUMBER CO. Limited
WHOLESALE LUMBER
SANS-DIEU-RIEN
MONTREAL - Canada
Large stock of 1″ 1¼″, 1½″ and 2″ WHITE PINE, Bone dry.
10/13-ft. Spruce and Hemlock
Offices at 97 St. James St., Montreal
Mills at Mont Laurier, P. Q.

When You Want Help in Your Mill
Insert an advertisement in the "WANTED & FOR SALE" department
The most efficient mill employees in Canada are regular readers of this paper. Get the best by advertising. Rates on request.
Canada Lumberman and Woodworker - - **Toronto, Ont.**
Montreal Office: 119 Board of Trade Building

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Birks Building, VANCOUVER, B. C.

For Immediate Shipment

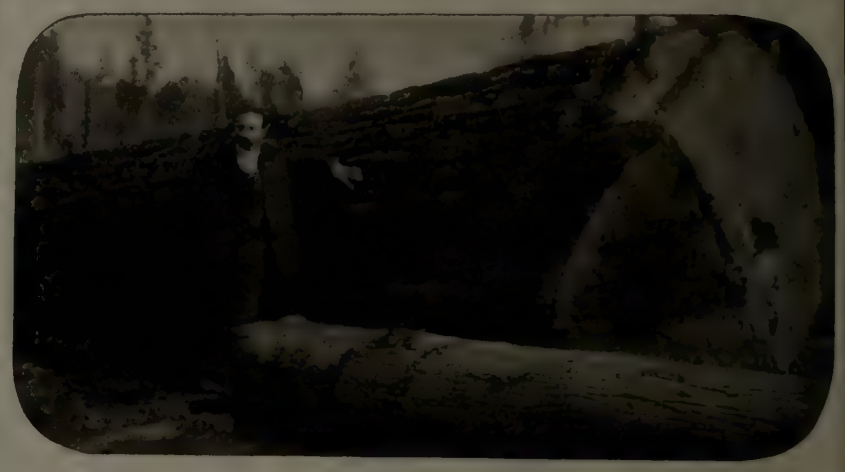
15,000 ft. of 3″ No. 1 C. & B. Maple
25,000 ft. of 1″ No. 1 C. & B. Maple
12,000 ft. of 2″ No. 1 C. & B. Maple
50,000 ft. of 2″ E. I. C. & B. Dry Birch

Best Quality and Bone Dry

Sawn in 1911 and 1912 and shipped according to the rules of the National Hardwood Lumber Association.

Glengarry Lumber Company, Limited

BERLIN :: ONT.



Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

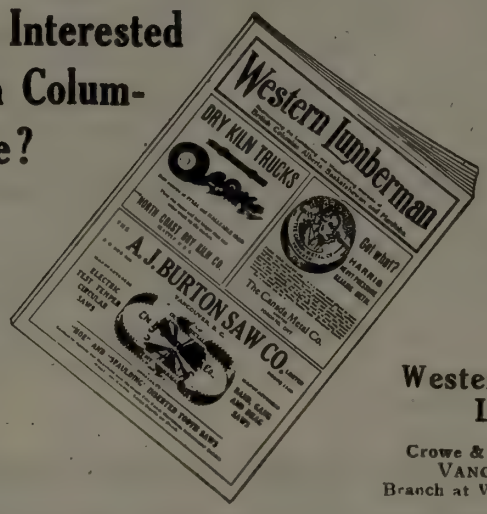
Our grade is positively right, and prices will please

Timberland Lumber Co., Limited

Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.

Mills at Craigs on the B C.E R.
Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

Are You Interested in British Columbia Trade?



The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.

There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

Western Lumberman

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

W. A. ANSTIE, Managing Director.

Forest Mills of British Columbia, Ltd.

Head Office: Revelstoke, B.C.

Mills at Taft, Three Valley, Comaplix, Cascade, Nelson

Manufacturers of

Lumber, Lath and Shingles

Specialties: WHITE PINE, WESTERN SOFT PINE and CLEAR CEDAR PRODUCTS

Special facilities for supplying the Eastern Trade

Eastern Representative — W. J. MacBeth, 60 Brock Ave., Toronto

→ KNIVES ←

**Good Steel Carefully Manufactured
Properly Tempered**

Ask for Catalogue and Quotations

Galt Knife Company, Limited

GALT - ONTARIO

MORRIS Q. E. F. RUNWAYS WILL CARRY ANYTHING, AND GO 'MOST ANY OLD PLACE. TRY!

THE HERBERT MORRIS CRANE & HOIST COMPANY, LIMITED,

EMPRESS WORKS, PETER STREET, TORONTO

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.

TORONTO, CANADA

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

POWER PLANT

2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The

Parry Sound Lumber Co.

Limited

26 Ernest Avenue, TORONTO, CANADA

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected
WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.

Canadian Representative:
G. H. Johnson, 125 Tyndall Avenue, Phone Parkdale 736, Toronto, Ontario

Hoffman Brothers Company

Fort Wayne, Indiana

Manufacturers of Hardwoods—Any Thickness From

1/30″ SLICE CUT VENEER
1/20″ SAWED VENEER
to
2″ BAND SAWED LUMBER

Specialty:

QUARTERED WHITE OAK

Service First

He profits most who serves best.

Our Winter's Cut of Hardwoods Now Ready For Shipment

LOOK THESE OVER!

38 M. 1 x 6 and wider, 1st and 2nd End Dried White Basswood.
22 M. 1 x 6 to 8 in., 10 and 12 ft. 1st and 2nd Basswood.
40 M. 1 x 7 and 8 in. 1st and 2nd Basswood.
40 M. 1 x 7 in. and wider No. 1 Common Basswood.
24 M. 1 x 8 in. and wider No. 1 Common Basswood.
35 M. 1 x 6 in. and wider, No. 1 Common Beech.
40 M. 5/4 No. 1 Common and Better Beech.
60 M. 5/8 No. 2 Common and Better Beech.
48 M. 1 x 6 in. and wider No. 1 Common Birch.
24 M. 1 x 6 in. and wider No. 2 Common Birch.
38 M. 6/4 1st and 2nd Soft Gray Elm.
25 M. 12/4 1st and 2nd Soft Gray Elm.
18 M. 16/4 1st and 2nd Soft Gray Elm.
45 M. 4/4 6 in. and wider 1st and 2nd End Dried White Maple.
16 M. 5/4 6 in. and wider, 1st and 2nd End Dried White Maple.
22 M. 6/4 6 in. and wider, 1st and 2nd End Dried White Maple.
36 M. 8/4 6 in. and wider, 1st and 2nd End Dried White Maple.

A complete assortment of all grades and thicknesses.

The Stearns Salt & Lumber Co.

Ludington, Michigan

W. M. RITTER LUMBER COMPANY

Below is list of Dry Lumber we can Ship Promptly

POPLAR

5/8 Panel and No. 1, 18 to 23, 1 car.
4/4 Panel and No. 1, 18 to 19, 2 cars.
4/4 Panel and No. 1, 20 to 21, 2 cars.
4/4 Panel and No. 1, 24 to 27, 1 car.
4/4 firsts and seconds, 7 to 17 in., 5 cars.
10/4 firsts and seconds, 7 to 17 in., 1 car.
16/4 firsts and seconds, 7 to 17 in., 2 cars.
5/8 No. 1 common, 1 car.
4/4 No. 1 common, 2 cars.
5/4 No. 1 common, 2 cars.

BASSWOOD

Firsts and seconds, 7 and up wide, 3 cars.
4/4 No. 1 common, 10 and 12 ft., 3 cars.
4/4 No. 1 common, 14 and 16 ft., 2 cars.
5/4 No. 1 common, 14 and 16 ft., 2 cars.

CHESTNUT

4/4 1s and 2s, 1 face, 2 cars.
5/4 1s and 2s, 2 cars.
6/4 1s and 2s, 2 cars.
8/4 1s and 2s, 1 car.

WHITE OAK

5/4 1s and 2s, 2 cars
6/4 1s and 2s, 3 cars.
7/4 1s and 2s, 2 cars.
8/4 1s and 2s, 4 cars.
4/4 No. 1 common, 4 cars.
5/4 No. 1 common, 2 cars.
6/4 No. 1 common, 3 cars.
7/4 No. 1 common, 3 cars.
8/4 No. 1 common, 4 cars.
4/4 quartered, 1s and 2s, 2 cars
4/4 No. 1 common, 2 cars.
4/4 No. 2 common, 3 cars.

RED OAK

4/4 1s and 2s, 2 cars.
5/4 1s and 2s, 1 car.
6/4 1s and 2s, 1 car.
4/4 No. 1 common, 4 cars.
5/4 No. 1 common, 1 car.
6/4 No. 1 common, 1 car.
4/3 clear face plain strips, 3½ to 5½ wide, 2 cars.

All our own manufacture, hand sawed and thoroughly seasoned. Do not place your order before writing for prices.

CANADIAN REPRESENTATIVE:

John Hall, Box 32, Toronto, Canada
Phone College 6997

W. M. RITTER LUMBER COMPANY — COLUMBUS, OHIO

Canada's Big Hardwood Market

There is an increasing demand in Canada for hardwoods and Veneers. The specialized woodworking industries of this country are away the best managed and most progressive industries. They have a world wide market for their goods.
Reach the lumber and veneer buyers of Canada's woodworking plants through this paper, the recognized authority in the field.

Canada Lumberman and Woodworker, Toronto, Ontario

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, **Cincinnati, Ohio.** *Write for prices.*

Sell Hardwoods in Canada

Reach the furniture factories, piano factories, sash and door factories through Canada's National lumber medium.

Published semi-monthly. Write to-day for rates.

Canada Lumberman and Woodworker

Toronto, Canada

CAFLISCH BROTHERS

HARDWOOD LUMBER

Wholesale Distributing Yards and Sales Offices

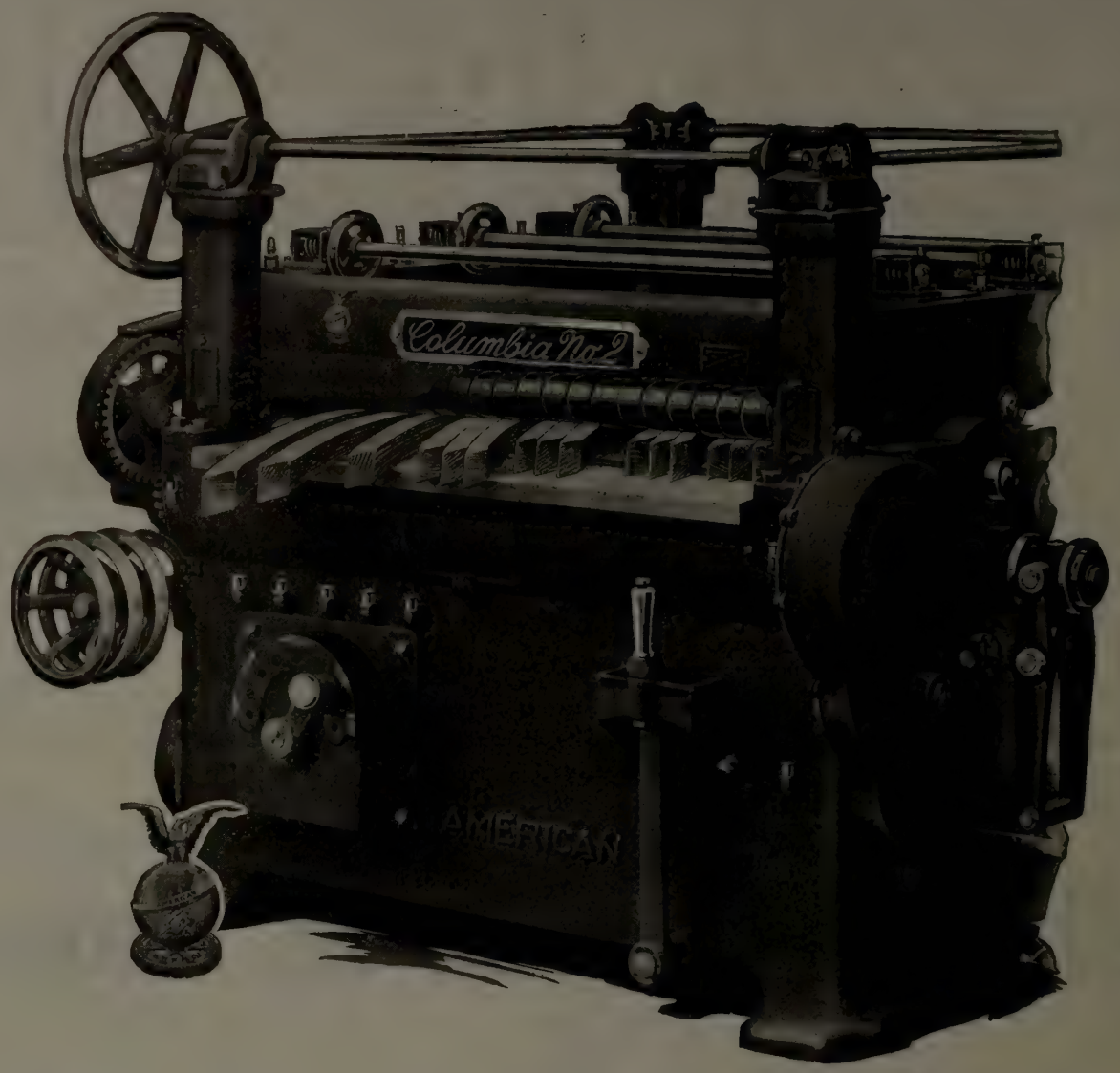
JAMESTOWN, N.Y.

Mills at—

Union City, Pa. **Monticello, Ky.**
Hambleton, W. Va. **Ross Point, Ky.**

Full assortment of grades and thicknesses in Quartered and Plain Oak, Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS. ***IMMEDIATE SHIPMENTS.***



Columbia No. 2 Triple Drum Sander

(With Sectional Feed Rolls)

YOU ARE FAMILIAR WITH THE SUCCESSFUL APPLICATION OF THE SECTIONAL FEED ROLL TO A PLANER—YOU HAVE ONE ON YOUR CABINET SURFACER—PERHAPS.

Well, we have applied the same principle to our COLUMBIA NO. 2 SANDER with the same purpose in view and the results are most gratifying—you can crowd the machine full of stock of approximate uniform thickness, and, owing to the yielding sections of the Feed Rolls, each piece is carried through the machine independently, and all are equally well and perfectly sanded.

YOU CAN READILY UNDERSTAND WHAT IT WOULD MEAN TO YOUR BUSINESS

if you could use every inch of the bed of your Triple Drum Sander when sanding chair rockers, as shown in the above illustration, or other narrow material, it would mean the greatest possible output at the lowest cost.

Our Sander Catalog will acquaint you with the many other costs-reducing features that characterize our No. 2. We shall be glad to send it to you.

American Wood Working Machinery Co.

Sales Offices:
New York:
90 West Street
New Orleans:
Canal-La Bank Bldg.
Chicago:
Sharples Building

Executive and General Sales Office:

ROCHESTER, N. Y.

Sales Offices:
Portland Ore.:
No. 19th and Wilson Sts.
Spokane Wash.:
Montgomery & Pearl Sts.
San Francisco:
46 Fremont Street

C. Beck Manufacturing Co., Limited

PENETANGUISHENE, ONT.

Penetang Pine——————

Pleases Particular People

Phone 42

When On a Hurry Up Job

The **Old Town "Canvas" Canoe**

A Friend in Need is a Friend Indeed

DISTRIBUTORS:

Henry Morgan & Co., Montreal, Que.
Holt Renfrew & Co., Quebec, Que.
Hudsons Bay Company— Their various branches.
F. A. Kirkpatrick, 81 Summer St., St. John, N.B.
Grant-Holden-Graham, Ltd., Ottawa, Ont.
The T. Eaton Co., Ltd., Toronto, Ont.
Northern Canada Supply Co., Cobalt, Ont.
Cochrane Hardware Ltd., Sault Ste. Marie, Sudbury, North Bay, Ont.
J. Darch & Sons, London, Ont.
Rice Lewis & Son, Toronto, Ont.

Agents wanted in unoccupied territory.

Photo taken by employee of Laurentide Co. Ltd., Grand Mere, P. Q. Their Supt., Forestry Division, states canoe damaged in Rapids, canvas held, braced up canoe and continued journey down St. Maurice River 70 miles. Used canoe balance of season and all following year.

F. M. DIXON

Canadian Representative: Beardmore Bldg., MONTREAL

Timber Concessions in the Province of Quebec

Notice is given by the government of the province of Quebec that, on the 11th of August and on the 20th of October, 1914, permits to cut timber on over 8,000 square miles of crown lands will be offered at public auction.

The territory to be disposed of comprises some 1200 square miles in the basins of rivers Ottawa, Harricana and Bell, in the Abitibi region; 6,000 square miles in the lake St. John northern region; 350 square miles in the lake St. John East agency; 242 square miles in the Matapedia division.

On the first date above mentioned, permits will be offered at ordinary conditions on some 3,000 square miles.

The timber grants advertised for the 20th of October, comprising the basins of three large rivers in the lake St. John region with considerable water powers, will be subject to the obligation of manufacturing the wood into pulp or paper within the province of Quebec.

For particulars, please apply to the Department of Lands and Forests, Quebec, Canada.

Elz. Uiville Dechene
Deputy-Minister of Lands and Forests.
Quebec, April 11th, 1914.

RUSSEL LOGGING CARS

Mr. Lumberman

It's the Russel Car you will be interested in. The Russel Car is unsurpassed in quality, service and capacity.

Built for any capacity and to accommodate any length of log desired.

—Canadian Representative—

Vancouver Machinery Depot Limited

Vancouver, B. C.

Russel Wheel & Foundry Company, Detroit, Mich.

B.L No. 314, ¼-Cut Oak

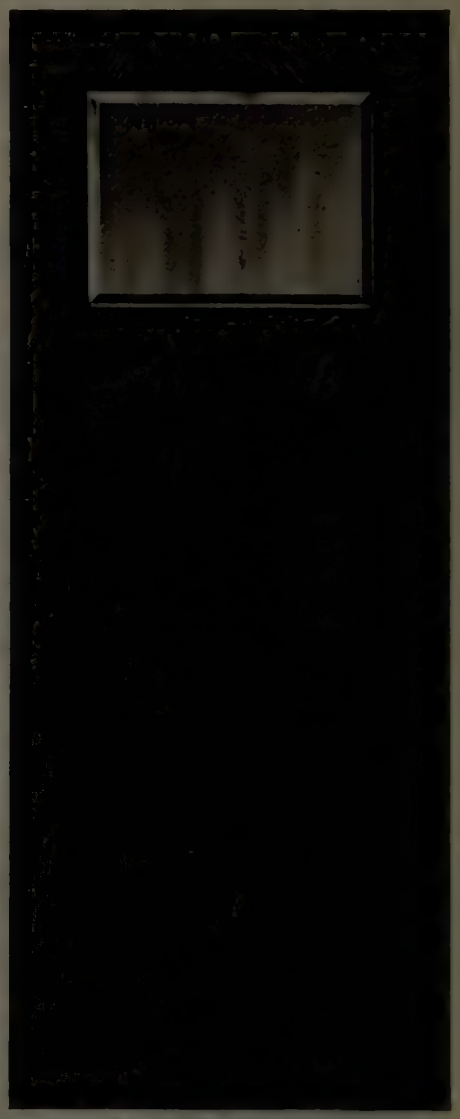
Batts Limited

Pacific Avenue, Toronto

MANUFACTURERS OF

Staved Colums, Veneered Doors, Newel Posts, Cypress Greenhouse Material, Pine Doors and Frames, Sash, Flooring, Trim, Turned Newels and Balusters

There are many other designs --- all equally Attractive---Shown in our Up-to-Date Catalog. You should send for a copy; it will help you considerably in the Selection of Your Future Requirements.



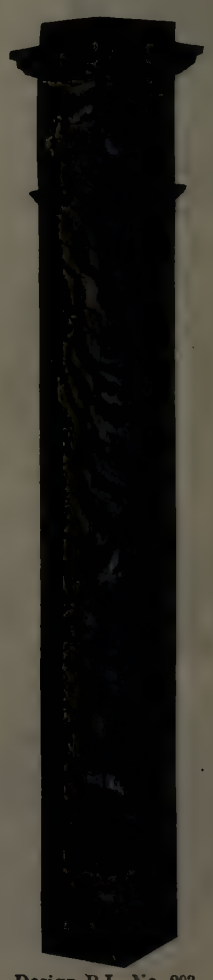
B.L. No. 369, ¼-Cut Oak

B.L. No. 264 Square B.L. No. 263 Octagon B.L. No. 250 Round

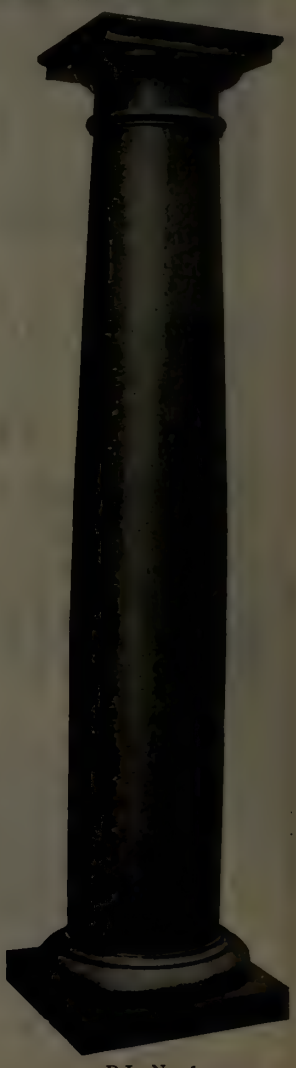
B.L. No. 3

Design B.L. No. 210

B.L. No. 265 Square B.L. No. 260 Octagon B.L. No. 251 Round



Design B.L. No. 203



B.L. No. 1

For High Speeds and Small Pulleys

Slippage, stretching, parting at the plies, quick ruin—these are the effects of high speeds and small pulleys on ordinary belts. Add sudden overloads and you have a further good reason why belts made to "meet a price" have to be renewed so often.

Goodyear Belts are made to meet actual service conditions. These are the belts Goodyear Engineers have designed for driving Edgers, Trimmers, Planers, Molders—all lumber-mill machinery of high speed, variable load and small pulleys.

"Extra Power"

A high-speed belt for high speeds and heavy drives. This belt shows the highest friction and pull of any belt we know of.

"Extra Power" is made to "stand up" under the most grueling service. The duck is the heaviest and strongest used in any Goodyear belt. This and the high grade rubber friction are laboratory tested for super-service. The stretch is taken out in the making. There can be no ply separation—the Goodyear construction takes care of that.

GOODYEAR TORONTO
Rubber Belting

"Imperial"

Here is the belt for high speed and small-pulley conditions. Its flexibility enables it to readily conform without imposing on the outer plies. This insures a maximum arc of contact, which means maximum power delivery and no slipping. A fine belt for trimmer work.

Ask Goodyear

Put your belt problems up to Goodyear experts. At our Bowmanville factory these men are designing belts to meet actual working conditions.

They can tell you just what Goodyear belt you need—and why. Service being the paramount consideration, the economy takes care of itself.

Also Hose, Packing, Valves

These experts have also designed hose, packing and valves to meet every exact purpose.

Before buying any factory equipment, consult these men. Asking questions costs nothing. The same quality-standards that have won Goodyear leadership in tiredom govern in this field also.

Stop experimenting. Buy service equipment the Goodyear way.

The Goodyear Tire & Rubber Co. of Canada, Limited

Head Office—TORONTO, Ont. Factory—BOWMANVILLE, Ont.

Branches at—Victoria, Vancouver, Edmonton, Calgary, Regina, Winnipeg, Hamilton, Ottawa, Montreal, St. John, N.B.

ONTARIO
Canada's Banner Province

Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

Pine production, 905,442,000 ft. B.M.
Pulpwood, 246,282 cords.
Railway Ties, 5,704,459.

Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

Ontario's vast resources offer unsurpassed opportunities to the lumberman.

For maps and full information regarding Ontario, apply to

HON. W. H. HEARST,
Minister of Lands, Forests and Mines.

Massee & Felton Lumber Co.

HARDWOOD LUMBER

Mills: MACON, GEORGIA

SHIPPING DRY STOCK LIST

QUARTERED RED GUM

4/4 1st and 2nd	74,000
4/4 No. 1 common	210,000
4/4 1st and 2nd Figured	12,000
4/4 No. 1 Common Figured	74,000

PLAIN RED GUM

3/8 1st and 2nd	20,000
4/4 1st and 2nd	460,000
5/4 1st and 2nd	7,900
3/8 No. 1 Common	18,000
1/2 No. 1 Common	10,000
5/8 No. 1 Common	21,000
4/4 No. 1 Common	230,000
5/4 No. 1 Common	7,000
6/4 No. 1 Common	9,000

SAP GUM

3/8 1st and 2nd Sap	15,000
1/2 1st and 2nd Sap	17,000
5/8 1st and 2nd Sap	4,000
4/4 1st and 2nd Sap	12,000
6/4 1st and 2nd Sap	64,000
4/4 18 and up Panel	31,000
1/2 No. 1 Common Sap	6,000
5/8 No. 1 Common Sap	15,000
4/4 No. 1 Common Sap	131,000
5/4 No. 1 Common Sap	17,000
6/4 No. 1 Common Sap	69,000
3/4 No. 2 Common Sap	17,000
4/4 No. 2 Common Sap	600,000
4/4 No. 3 Common Sap	350,000

BEECH LOG RUN

4/4 Log Run	50,500

HICKORY

8/4 No. 1 Common and Better	43,000
8/4 No. 2 and 3 Common	23,000

1 Car Run Strips Hickory, 1¼ x 1⅜, 6 and 7 ft. long.

ELM

5/4 Log Run	7,000
6/4 Log Run	49,000
6/4 No. 3 Common	9,000

MAPLE

4/4 Log Run	12,000

ASH

4/4 No. 1 Common	25,700
5/4 No. 1 Common	1,700
6/4 No. 1 Common	2, 0

CYPRESS

4/4 Log Run	16,000

PERSIMMON

5/4 Log Run	2,000
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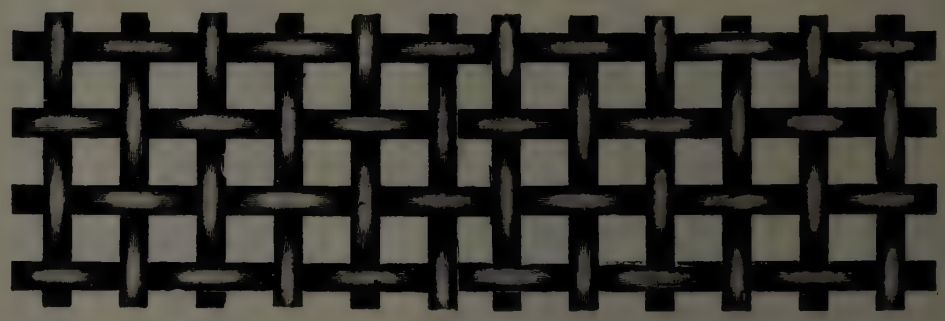

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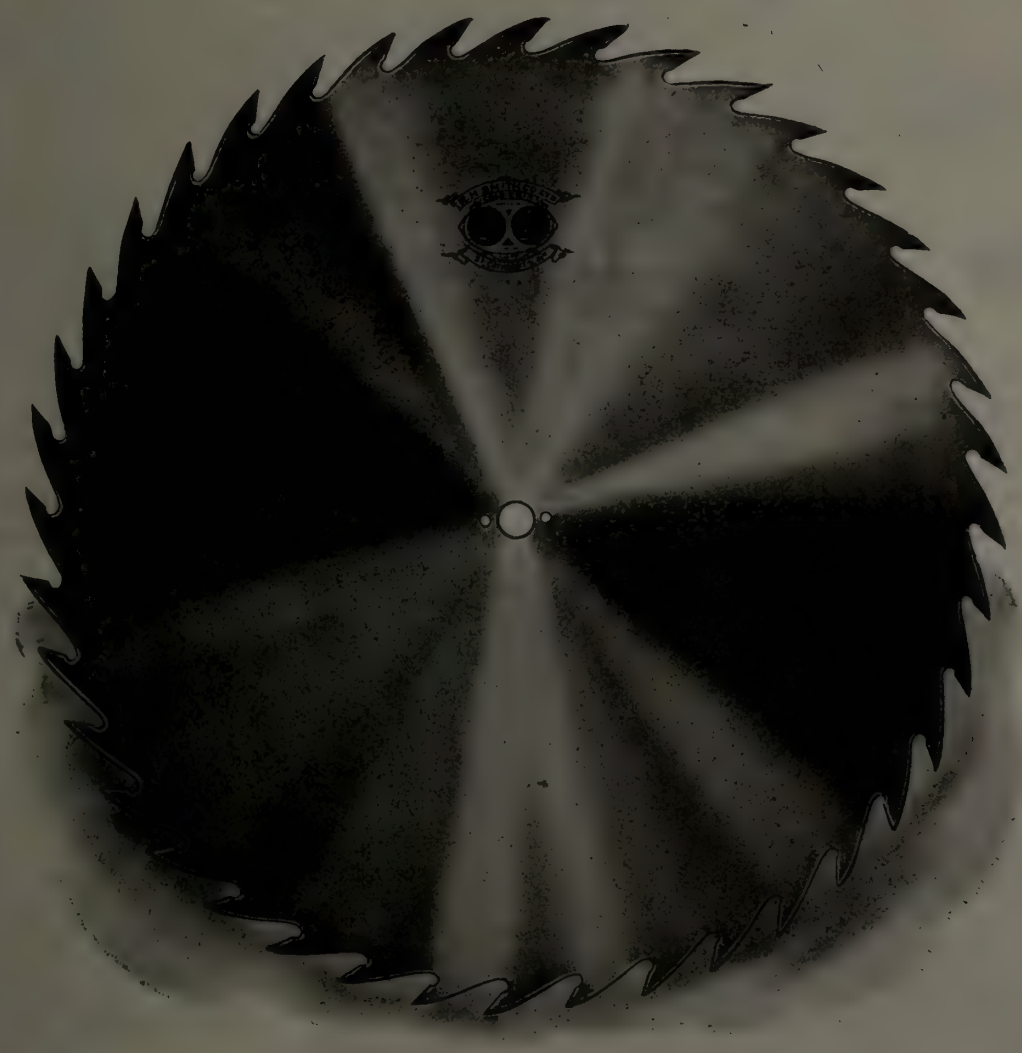

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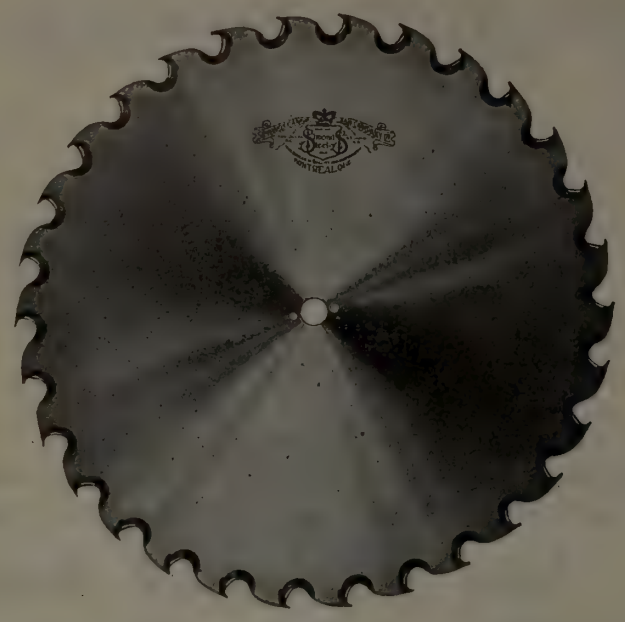

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Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 34 Toronto, July 15, 1914 No. 14

Trade Commissioner's Report Stirs Up Disapproval

At a meeting of the lumber committee of the Vancouver Board of Trade held recently, the secretary pointed out that Mr. Egan, Dominion trade commissioner for South Africa, had made reports to Sir George E. Foster, minister of trade and commerce, reflecting upon the standard and inspection of lumber shipped to South Africa. The secretary had received communications, he said, from all foreign shippers in the province, who emphatically stated that lumber in British Columbia was subject to the same inspection as that of Oregon and Washington, and was on no occasion complained of in the markets of South Africa. The matter will be brought to the attention of Sir George E. Foster in the endeavor to remove the bad impressions left by Mr. Egan's report.

Apparently Mr. Egan sought to assist Canadians in selling more lumber to South Africa, and if his information is well founded, the matter is one requiring more than an expression of dissatisfaction with his report. We do not wish to reflect either upon Canadian shippers of lumber or upon Mr. Egan, but simply to urge that Mr. Egan's report should be enquired into carefully by the Government, for he says that all dealers inform him that they would like to handle Canadian lumber more extensively, but that this is impossible as they "cannot depend on any two consecutive shipments from one source; a board received on shipment at equal price and market conditions may be much inferior to the next shipment."

The rest of Mr. Egan's report was as follows:

Sweden grades her lumber Nos. 1, 2, 3, 4, and 5. No. 1 permits a very few small hard knots. No. 2 permits of a few more than No. 1. Nos. 3, 4, and 5 are graded according to the number of knots whether loose or tight. No. 4 and 5 also allow wain, shake and almost every fault lumber can have. Baltic lumber is not graded officially but certain mills have established reputations for standard shipments and they can be depended on by the trade to make standard grade deliveries.

The lumber from British Columbia to the South African market is shipped principally to Durban and is placed usually through London or San Francisco. This has always given satisfaction and is usually delivered on a standard order, "the usual assorted South African cargo."

The demand is not for an improvement of grade in Canada lumber; it is for the establishment of a standard of quality in each grade and, of course, an official inspection of same. This will give a guarantee to the foreign purchaser, which places him in the position of knowing what stock he will have on hand when he receives delivery of his order.

The orders placed now for British Columbia lumber are in the hands of a limited number of coast dealers, and it is certain that the moment it becomes known that Canada or any portion of Canada is prepared to ship lumber according to certain standard grades, the demand will come from many sources. This will mean an increased trade for Canadian lumber in South Africa and other importing countries.

Thinks Canada is Getting too Much

The Wall Street Journal, one of the most important financial papers in the United States, devotes a column of a recent issue to an effort to persuade President Wilson that the depression in the lumber and shingle market is largely due to the recent removal of the duty. Canadians will probably take such an argument with a grain of salt, as they find trade depression general in all the principal markets of the world, and confidently expect those in the United States to improve at the same time as the rest. But, just to illustrate the situation in the United States, and the way it is looked upon by some people, we reproduce part of the Wall Street Journal's article, in the form of a letter to its editor from Charles E. Patten, vice-president of the Atlas Lumber Company, Seattle, Wash., manufacturers and wholesalers of lumber and shingles. Mr. Patten says in part: In May, 1913, our payroll was $29,176.76; in May, 1914, our payroll was $16,622.05; in May, 1913, we had on our payroll 293 men; in May, 1914, we had on our payroll 181 men; our total output in May, 1913, was 6,950,744 feet of lumber; our total output in May, 1914, was 2,423,160 feet of lumber; in May, 1913, we booked orders for 3,615,381 feet of lumber; in May, 1914, we booked orders for 1,747,283 feet of lumber; in May, 1913, we booked orders for 5,216,000 shingles; in May, 1914, we booked orders for 2,976,000 shingles.

In looking over the records of some fifty of the leading mills in Washington. I find the following shrinkage in prices received by them:

	May 1913	May 1914	Dec.
No. 1 VG fir flooring	$28.50	$23.00	$5.50
No. 2 fir ceiling	15.50	12.00	3.50
No. 2 fir drop siding	19.00	14.00	5.00
2 x 4 fir 12 to 16 ft.	9.00	6.50	2.50
Car sills	20.00	11.00	9.00

Will also state that a year ago, one of our greatest troubles was to secure men. We found it almost impossible to operate our mills for lack of men, although we were paying the highest wages ever known in the State of Washington, and our mills were running full time. Last October, a large number of our mills closed down and are still idle, and wages have been reduced from 25 to 50 cents per day, and unless business improves by July 1, the manufacturers will be compelled to make another reduction in wages, in addition to reduction already made. A great many of our men have had steady employment only three months in the past eight.

Prior to the present removal of duty from shingles, it is estimated that the shingle mills of British Columbia were operating not more than one-half time, and under the old law, there were practically no shingles imported into the United States. Since the first day of January, there have been built in British Columbia shingle mills containing a total of 126 addition shingle machines, and even with this additional capacity, every mill is running full time and a great

many of them operating nights. All of the additional shingles manufactured are being shipped into the United States.

Although the Government has refused to furnish us with the number of shingles now being imported, it has been variously estimated at from 700 to 1,200 cars per month, and as the average shipment from the State of Washington for the past ten years has been about 2,500 cars per month, it means that we are now losing one-half of our shingle trade, which means that one-half of our mills must close down and one-half of our present employees secure employment in other lines, and the remaining half work at a reduced wage scale. As Oriental labor is used almost entirely in the shingle mills of British Columbia, it is estimated that their labor cost of manufacture is from 25 to 40 per cent less than our labor cost.

We believe that 75 per cent of the depression in the shingle business is due entirely to the removal of duty, and a very large part of the reduction in the price of lumber is due to the same cause, and the balance is due to the various laws passed by the present session of Congress and the fear of the passage of more freak laws. We believe if Congress would adjourn without passing any more laws, that with the bright crop prospect, business would greatly improve, although the lumber and shingle industries will be seriously affected for years on account of the removal of the tariff.

Small Bush Fires—A Recent Lesson

On the morning of June 9th a small tuft of grass was seen to be smouldering on some vacant land in the southern part of the town of Hearst—a Divisional Point on the Transcontinental Railway, about 130 miles west of Cochrane. Several people appear to have noticed it; but it was too insignificant, too trivial to need attention (so they thought); and they passed on without giving the matter further thought—for the time at any rate. Later in the day they probably regretted that they had not devoted a couple of minutes to smothering the few square inches of smouldering material. However, it was none of their business; it was nobody's business; and the incipient blaze was allowed to smoulder on.

There was a fairly strong south-west wind blowing at the time, but at noon this had increased to a hurricane. Whilst most people were at dinner the fire in the insignificant tuft of grass had, fanned by the furious gale, eaten its way over a large portion of the vacant lot, and was fast threatening the buildings in the vicinity. Then there was general alarm throughout the town; and eighty or a hundred men turned out to fight the flames. They fought bravely and untiringly; but it was too late. What one man could have done two or three hours previously, a hundred men could not now accomplish. One building took fire, and then all hope was abandoned, for in such a breeze it was useless to attempt further to battle with the flames. In an hour or so, half of the town was reduced to ashes, and the bush on all sides, ignited by the flaming debris from the town, was burning furiously; and all because people had ignored a little tuft of burning grass!

The damage in the town itself was about $50,000. What damage was caused to standing timber in the bush it is impossible to say, for no one knows definitely where the fire finally exhausted itself.

There is one lesson to be learned from the Hearst fire—and it should not go unheeded in the North Country where the bush fire menace is becoming more and more serious every year. The public should have the fact impressed upon them that no matter how small and insignificant a portion of bush or undergrowth may be burning, the only safe policy is to extinguish it at once. This piece of advice is so perfectly obvious to even the most simple mind, that it may appear almost an insult to put it into print for the guidance of an intelligent public. That it is necessary advice, however, the Hearst fire may be cited as a recent and conclusive piece of evidence.

It is advice, moreover, which cannot be enforced too strongly or too insistently by the Government on the fire-rangers. There is an impression in the minds of some people that the fire rangers are appointed for the purpose of extinguishing big bush fires when they occur, but when a fire has taken hold over even a very small area a couple of fire rangers are as helpless as a new-born babe. Even a perfect force of fire rangers would be practically useless except for the purpose of extinguishing incipient outbreaks. If they could be trusted to patrol their beats regularly, and attend to every little smouldering mass which they come across, the number of bush fires which have to be recorded annually would probably not be so great.

"Oh, it's only a little affair. There's no danger from that," is the comforting assurance which a ranger or other party gives himself too frequently when he comes across one of these small fires. The weather is too hot or they are too indolent to give it proper attention and they pass on. In some cases it really proves to be a "little affair" with "no danger" but small smouldering patches ignored by the fire-rangers have been known afterwards to develop into serious conflagrations. The fire-ranger who is faithful to his oath, and loyal to his duty will see that every small fire which comes under his ken is properly extinguished before he leaves it. The public should do the same.

"Where there's smoke there's fire" and where there's smoke or fire in the bush there's danger to life and property unless the utmost care is taken to prevent the outbreak from spreading.

Canadian Exports and Imports of Wood Goods

According to the annual report of the Department of Trade and Commerce the imports of products of the forest into Canada free of duty during the year ending March, 1914, were valued at $16,201,612. The exports of forest products for the twelve months amounted in value to $43,386,087. In the year ending March, 1913, the value of the exports of forest products was $43,697,623.

Exports of pine deals during the year ending March, 1914, were valued at $1.408,709 as compared with $1,386,708 for the preceding year. Most of these deal exports were to Great Britain, the total being $1,322,326. During the preceding year the value of the exports of deals to Great Britain was $1,285,863. Exports of pine deals to the United States showed a decrease, being valued at $61,616 as compared with $78,355 during the preceding year.

Exports of spruce deals during the year ending March, 1914, to all countries were valued at $6,547,854. In the preceding year the value was $5,513,543. Most of these exports were also to Great Britain, the value being $5,947,348 as compared with $4,683,821 in the preceding year. The exports of spruce deals to the United States showed a falling off, the value being $513,883 as compared with $743,561 in the preceding year.

Exports of planks and boards to all countries during the year ending March, 1914, were valued at $19,522,675. During the preceding year the value under this heading was $20,839,098. The largest export of planks and boards was to the United States, the total being $15,257,076 which is a falling off from the total of the preceding year which was $16,247,450. To Great Britain the exports of planks and boards during the year ending March, 1914, were valued at $1,772,368 as compared with $1,825,549 during the preceding year. Exports of planks and boards to the Argentine during the year ending March, 1914, were valued at $1,276,295.

Shingles were exported from Canada during the year ending March, 1914, to the value of $1,775,619 as compared with $1,409,116 during the preceding year. Most of the exports of shingles were to the United States, the total being $1,738,879 as compared with $1,374,569 during the preceding year.

Exports of laths to all countries during the year ending March, 1914, were valued at $1,699,221. Practically all of these were to the United States.

Exports of scantlings during the year ending March, 1914, were valued at $1,264,881.

Pulpwood exports to the United States during the year ending

March, 1914, were valued at $7,388,770 as compared with $6,806,445 during the preceding year.

Exports of wood pulp during the year ending March, 1914, were valued at $6,364,824 as compared with $5,509,544 during the preceding year. During the year ended March, 1914, the exports of chemical wood pulp to the United States were valued at $2,660,013. Mechanical wood pulp exports during the same period to the United States were valued at $2,254,621 and those to Great Britain at $1,162,470.

Imports of planks, boards, etc., dressed on one side only, which enter Canada free of duty, during the year ending March, 1914, from the United States were valued at $4,423,245. The total value from all countries was $4,428,341, which is a considerable falling off as compared with 1913 when the value was $6,089,548.

Imports of oak lumber and timber from the United States during the year ending March, 1914, were valued at $2,629,788. During the preceding year the value was $3,227,113. In the year ending March, 1912, the value was $2,449,542.

Imports of pitch pine during the year ending March, 1914, were valued at $2,912,363, during the preceding year the volume was $2,435,376 and during the year ending March, 1912, the value was $1,929,923.

During the month of May, 1914, Canada's exports of forest products were valued at $3,296,455, as compared with $3,039,563 and $2,885,812 during the corresponding months in 1913 and 1912. During the months of April and May the exports were valued at $5,171,194, as compared with $4,909,278 and $4,363,854 in the corresponding periods during 1913 and 1912. For the twelve months ending May, 1914, the exports of forest products in Canada were valued at $43,054,053, as compared with $43,800,484 and $41,410,417 in the corresponding twelve months for 1913 and 1912.

Timber Preservation Increasing in the U.S.

The most notable progress yet recorded in the United States in the chemical treatment of timber to prevent decay was made in 1913, according to a report recently issued by the American wood preservers' association in co-operation with the forest service of the department of agriculture. The report states that 93 wood-preserving plants in 1913 consumed over 108 million gallons of creosote oil, 26 million pounds of dry zinc chloride, and nearly 4 million gallons of other liquid preservatives. With these the plants treated 153 million cubic feet of timber, or about 23 per cent more than in 1912. The output from additional plants unrecorded would increase the totals given.

Impregnation of wood with oils and chemicals to increase its resistance to decay and insect attack, the report goes on to say, is an industry which has become important in the United States only in recent years. In Great Britain and most of the European countries practically every wooden cross-tie and telephone or telegraph pole receives preservative treatment. In the United States less than 30 per cent of the 135 million cross-ties annually consumed are treated, and the proper treatment of an annual consumption of 4 million poles may be said to have scarcely commenced.

Real progress in the United States dates from 1832, when the Kyanizing process, using bichlorides of mercury, was developed. In 1857 two other processes were introduced, the Burnett process using zinc chloride, and the Bethel process using coal tar creosote. These last processes are very largely in use to-day. The idea of timber preservation at first made very slow growth in the United States, on account of the large supply of cheap and durable timbers and the general disregard shown toward economy in the use of natural resources. In 1885 there were only three pressure plants in the United States, and in 1895 only 15.

Lumber Trade Opportunities in Cuba

The lumber trade (imports) of Cuba is chiefly confined to yellow pine, spruce and white pine, which are exempt from customs duties when not manufactured, says a recent Trade and Commerce report.

Cuba imports over 100,000,000 feet of yellow pine (grade 2) per annum, and it is supplied by the United States, shipments being made from Gulf ports, freight rates fluctuating from $5 to $6 per thousand feet. This lumber is used in Cuba in the construction of buildings, etc., and the demand must naturally increase with the development that the Island is now going through.

In the exportation of spruce to Cuba, Canada figures with about 15,000,000 feet. This wood is imported in schooner loads, freight being about $5 per thousand feet; sometimes steamers are chartered. As this lumber is used only by manufacturers of boxes and similar industries, the demand for the time being is likely to remain stationary.

Canada also contributes about 3,000,000 feet of white pine, which like the spruce is exported from eastern ports of the Dominion. This lumber must face the competition of Cuban cedar, and it is estimated that the trade is subject to decrease.

From the data given it will be seen that yellow pine is the only trade worth figuring on for the Cuban market, with reasonable prospects of success. In timber regions where yellow pine cannot be procured it becomes necessary to figure on some other kind of lumber which would answer the same purpose as yellow pine (grade 2) and that could be offered at a price which, with the addition of freight rates, plus canal tolls, would compare favourably with the prices and freight rates offered by the United States Gulf ports. If this is practicable, then western Canada lumber can find markets in Cuba, and be in a position to enter the contest to secure a share of the 100,000,000 feet imported by Cuba every year.

It is believed that Oregon, Washington and California are looking to the Cuban market for the sale of their lumber via Panama Canal. While conditions in these States do not appear to be very different from those of western Canada, it would be advisable that Canadian lumber merchants should take the necessary steps to carry on competition. Samples of lumber would assist the Acting Canadian Trade Commissioner at Havana in carrying on a closer investigation as to possibilities of business, and at the same time full particulars of conditions, prices, freights and prospects should be given in order that no time be lost in preparing the ground in the event of that trade being feasible.

The class of lumber produced in British Columbia most suitable for the Italian market is the Oregon pine, or so-called "Douglas fir," says a recent trade report. Owing probably to climatic reasons it does not give as good results as pitch pine, but it could command a sale in Italy on account of its large width and the absence of knots. Several years ago, due to favorable freights, three full cargoes were imported into Genoa, but since that time small parcels of from 20-50 standards which have been received were sold at a loss.

Austrian and Swedish pitch pine is sold in large quantities at a price of about £12-£12 10s. per standard c.i.f. Genoa, and if Oregon pine could be placed on the market at about the same price it could be sold in competition with the former. Shipments would be most convenient by full sailing ship or chartered steam ship cargoes direct; the small parcels referred to were shipped by liner steamers, which call at Naples, Genoa, and Marseilles, on their way to the United Kingdom.

Canadian timber in logs or in sawn lengths enters Italy duty free.

The Reader's Viewpoint on Trade Topics

Western Crops Promise Improvement in Lumber Market—Ontario Retailers Report Continued Trade Activity

Mr. J. L. Campbell, of the firm of Campbell and Johnson, wholesale lumber dealers, Toronto, recently returned from a two weeks' visit to the Prairie provinces. Speaking of conditions in the west Mr. Campbell said:—"Owing to the lack of rain in the vicinity of Winnipeg, in the Morden district, in Southern Alberta and Southwestern Saskatchewan, there will not be much more than half an average crop. In the rest of the three Prairie provinces the crop prospects are better than they have been for some years. In my experience of twenty-one years I never saw such a grand outlook for the crop. As a rule, you will find districts with good crops and bad in them, but with the exceptions I have already mentioned, the crops are uniformly up to a high standard. I should say there are districts where—if nothing should happen to the crops—there will be an average of from 25 to 30 bushels to the acre. On the first of July the heads of the grain were just coming out. That crop should be ready for the binder about the 12th of August.

"Business throughout the west is very quiet. Everybody is watching and waiting for this crop. Should the prospects be fairly well realized there will be a large profitable crop.

"One prominent feature of the business situation throughout the country is that everyone has been buying very little during the present year; merchants from hand-to-mouth, and farmers only what they cannot get along without.

"The proceeds of the crop should relieve the financial situation a great deal. Ontario especially should feel the benefit of it as collections from the west will be much easier to make.

"The Western country is not affected very much by the world-wide stringency. The time has come in the west when they must depend in future upon production, not upon foreign money which they have borrowed. If they get good crops this year the country will be alright irrespective of outside conditions.

B. C. Trade Looking for Better Times

Editor Canada Lumberman: Vancouver, B.C., July 2.

The practical abolition of the tariff on Canadian lumber by the United States Government has had the effect of materially stimulating the cedar industry in this province. Relatively, we have a much larger stand of cedar than Washington or Oregon.

Lumbermen who make a specialty of manufacturing cedar are making purchases of standing timber, and quite a number of them are preparing to build mills, and would have done so earlier, had it not been for the depression through which we are just passing.

The lumber market, as you know, has been at a very low ebb, but at present the demand is improving, and, while prices remain low, we expect better times in the near future, especially if crops in the North-west turn out as predicted.

The Panama Canal does not exist in the doubtful future, but is a reality, and before the end of 1914 we will be shipping lumber by steamers at a lower rate than we can secure by sail around the Horn, and will be able to deliver lumber to the Atlantic seaboard more quickly than shipments by rail. The opening and operation of the Panama Canal will take a great deal of our surplus lumber, relieve the congestion, and put the industry on a much better basis.

Nearly everyone in the sawmill business realizes that prices have touched bottom, and we are all hopeful for the future. Good standing timber of all varieties, being well located, has held its own in price, and in fact has advanced in price with a few exceptions, where owners were not able to carry same.

With the early completion of the Grand Trunk, the Canadian Northern, and the new line of the Great Northern to Vancouver, our home market will be widened materially.

There has been a good demand for cedar poles and piling during the entire year.—C. S. Battle.

Expects Cheaper Labor This Year

Editor Canada Lumberman: Wilberforce, Ont., July 2.

There is a falling off in the local demand for lumber. This is due to the crop failure of last year. Of course the demand here is very small at any time. Prices however, are not affected. Correspondence with manufacturing consumers at outside points leads us to the conclusion that they are overstocked with hardwood. It does not seem to be a matter of price with them. They simply will not buy until business conditions brighten up or until they require fresh material. Some of them claim that they have stock enough on hand to last for one or two years, and they simply will not buy.

As to the cost of labor; I could employ plenty of local help for a good camp at from five to seven dollars per month less than a year ago. The labor problem has been the greatest trouble of late, and now it looks as though there would be a much needed change. Paying from $35 to $40 per month with better board than you could get in hotels charging $2 to $3 per day, and with work so plentiful that you simply had to take any man and let him do as he liked, has not been in the best interests either of the lumberman or of the employees. The large mills have been the offenders as they have been paying more than the limit and taking chances. This has made it very bad for the man with a small business. In my own case, my lumber cost me more than jobbers would pay. However, as I have sold my little stock direct to the manufacturer, I have managed to make a small profit. With the demand as it is at present it seems to me that the cut this winter will be light and wages at least 30 per cent lower.—H. S. Mulloy.

Toronto Retailer Wearing a Smile

Editor Canada Lumberman:— Toronto, July 6.

We have been doing business for the past two and a half years in the old stand of Martin McKee & Son at 1074 Queen Street E., and, up to the present, have had no reason to complain, as we have always had about as much business to do as we can handle. There are always two or three months in the winter when the planing mill man expects quiet business, but even during these months we had plenty to keep our usual staff of men at work. When we took off our balance for the month of May we found it to be the best month we ever had, and at the end of June we found that it had been a great deal better than the previous month.

Taking everything into consideration we fail to find any cause to murmur, and although many people tell us that times are going to be bad, we intend to keep on smiling and enjoy the present for certainly our district looks as if it will take a large quantity of lumber before the hundreds of buildings now commenced will be completed.

The customers we have in this part of the city all appear to be in a prosperous position, for, as a rule, they pay up their accounts promptly, which is a great help and makes doing business very pleasant.

We can honestly say that at present we have more orders on hand than at any previous time in our history and so long as things remain like this we will be quite satisfied and able to wear a smile. —R. A. Rastall & Company.

Strathroy Trade Fairly Active

Editor Canada Lumberman: Strathroy, Ont., July 2.

I believe the trade in Strathroy and the surrounding country is as good as could be expected and probably better than last year. There are a great many houses going up in town and also in the surrounding country. I believe the reason that the wholesale lumber business is not as good as previous years is the existence of hard times in the United States, making prices of lumber there much lower than they were last year. In consequence, the Canadian wholesalers have strong opposition or competition in the lumber trade with United States cypress, yellow pine and hemlock, which are being delivered from the United States at lower prices than those for which you can buy hemlock from Canadian dealers.

Cypress is a wood that can be used for any purpose. So, naturally, if you can buy cypress of as good a grade as hemlock, and at as low a price, a dealer will take the cypress in preference. I do not think the condition will change for some time, or until the prices have stiffened in the United States, which, I believe, will be in the course of a year.—R. W. Nicholson.

Good Trade at Marmora

Editor Canada Lumberman:— Marmora, Ont., July 3.

The lumber trade is good in our section. We cut our stock to order last winter and have shipped out a lot of it already. The home trade is good, as there have been several fires in our town, and insurance was carried in each case, so that the buildings are being put up again. Some buyers are quoting a little lower than last year; others are paying just as much.—J. W. Bonter.

Editor Canada Lumberman: Tottenham, Ont., July 6.

In our experience during the past 25 years in the lumber busi-

ness we have never found trade so dull or the outlook less promising. The money market conditions have a serious effect on trade, and, as the banks have tightened up on customers, trade in general has slackened seriously.—Wm. Potter & Son.

Finds Trade Still Slow

Editor Canada Lumberman: Mountain Grove, Ont., July 3.

We find that the lumber trade this season is very slow. There seem to be a lot of wholesalers looking for trade, but buyers are all very careful. The wholesalers all report that it is hard to secure orders and that trade is very slow.—Card Bros.

Welland Trade Improving

Editor Canada Lumberman: Welland, Ont., July 2.

I find that trade is picking up very nicely. I am running full handed here, and there seems to be as good a market as last year, and slightly improving all the time.—S. L. Lambert.

Plenty of Business Now Offering

Editor Canada Lumberman: Toronto, July 7.

While business recently has not been as satisfactory as I would expect, we are receiving very nearly all the orders we can handle and hope to do so from now on.—T. H. Hancock.

An Albany Dealer's View of the Spruce Market

In a recent issue of the New York Lumber Trade Journal, Mr. Curtis N. Douglas, of L. Thomson and Company, is reported as having spoken as follows in connection with the market for spruce lumber:—

"Speaking in a general way, the demand for spruce during the last twelve months has been uncertain and feeble. Although the production of spruce in Canada and the Adirondacks has not been excessive, the demand has not been sufficient to sustain prices. Under the inexorable law of supply and demand, prices have been gradually falling until they seem now to have about reached bottom. Of late this opinion has seemed to prevail among buyers of spruce in the Metropolitan District with the exception of the Borough of Manhattan. Some large specifications for 13 and 16-foot spruce have come to wholesalers during the last two weeks, but the buying has not been sufficiently strong to steady prices. Some of the larger wholesalers are accepting orders for round amounts of spruce at going prices, and if the buying continues to increase to some extent, the pressure of spruce from wholesale sources will soon subside.

"One feature of the present situation is the shortage of logs at Canadian mills. A very large percentage of the logs cut last winter has been hung up in side streams on account of the spring floods running away too quickly. Unless unusually heavy rains fall during the summer, some of the Canadian mills will be short of logs and will be compelled to shut down in a few weeks. I hear that some Canadian mills have not yet begun to saw this season, and may not operate at all on account of the lack of enough logs to make it profitable.

"So far as my observation goes, retailers in the Metropolitan District are carrying incomplete stocks of spruce, and I may say that the stock of spruce in Albany at present is smaller than it has been for many years. Under these circumstances it would not take a great increase in the demand to steady the market quickly.

"A number of Canadian manufacturers of spruce are sitting back comfortably and smiling serenely. They have a good reason for doing so. Most of them sold their cuts of spruce last winter at the highest prices on record. At prices prevailing in this market now, the middle man who made the purchases cannot get out even. We can see now that it was a fictitious market that prevailed for Canadian spruce last winter, and some of us, both Canadians and Americans, thought so at the time. However, I am not a pessimist as to the future of the spruce market in the long run. Taking a broad view of the situation, I think we shall see increased activity and steadier and better prices soon after September 1. Nearly all the spruce that was wintered by American owners at Canadian mills has been disposed of. Consumers of spruce who are going into the market now, or who will go in later, will have to depend on this year's cut to fill their wants, and this year's cut, from all sources of information at hand, is very likely to be short of the average annual production. These are my views of the situation as regards spruce, and I give them for what they are worth, realizing that no man's judgment of the conditions that exist at present is infallible.

"There is one more feature of the present situation in viewing the lumber markets of the United States as a whole, and it is a very important one. The greatest crop of winter wheat ever known is now being harvested in Oklahoma and Kansas, and the outlook for winter wheat in the other wheat-growing States is excellent. The effect of this great crop is being felt in an increase of the retail trade in the Western States. In the past, a great crop of wheat has been followed almost immediately by a decided increase in the demand for and the consumption of lumber. If the past repeats itself, and it is very apt to do so, the demand for lumber in the west will take care of pretty nearly the entire production there. It has happened before that a lively demand for lumber in the west has greatly strengthened the markets for lumber in the east, and I think this probability is quite likely to become a reality this autumn."

English Views on Panama Canal Trade

The weekly report of the Department of Trade and Commerce issued on July 6th contains further reference to foreign markets for Canadian lumber, supplementing those which have been published in previous issues. A report from the Trade Commissioner at London, England, states that representative timber brokers are not favorably impressed with the prospects for increasing trade in British Columbia timber after the opening of the Panama Canal. Few however, are willing to express their opinions for publication, preferring to wait until the route is open and freights and tolls have been definitely announced. It is generally considered that the Pacific Coast lumber business is in an unfavorable geopraphical situation compared with other sources of supply.

Freight Rates

Up to the present the freight from British Columbia ports to Great Britain has been usually from one-third to a half greater than from gulf of Mexico ports, and authorities are doubtful that any reduction which may be effected by the canal will nearly approximate this difference. During the recent shipping boom freights from British Columbia were up as high as 100s. per 1,000 feet; at which time gulf of Mexico freights hardly advanced above 50s. One expert, in order to illustrate the nature of the freight competition in various kinds of pine wood which British Columbia has to meet, suggested the following somewhat rough comparative table:—

British Columbia to the United Kingdom ..	1s.	per cu. ft.
Gulf of Mexico to the United Kingdom ...	6d.	per cu. ft.
Eastern Canada to the United Kingdom ..	3½d.	per cu. ft.
Sweden to the United Kingdom	1½d.	per cu. ft.
White Sea to the United Kingdom	3d.	per cu. ft.

A very important advantage which should, however, result from the opening of the canal route will be a considerable increase in the tonnage available, because the absence of frequent and regular means of transportation has undoubtedly been a great handicap to British Columbia ports, even more than to the United States. As a rule this has necessitated the transmission of British Columbia lumber in cargoes, entailing a large financial responsibility which could only be undertaken by the most substantial firms, and although in recent years there have been greater opportunities for shipping "parcels," the cargo practice has to a certain extent limited transactions. The change will not, however, be without its disadvantages, because the business will no longer be so attractive to the large firms who have so far practically enjoyed a monopoly of the business, but upon the other hand, with the timber coming in more freely and regularly, it will doubtless become better known among consumers, and its use become more general.

Opinion of a Principal Firm

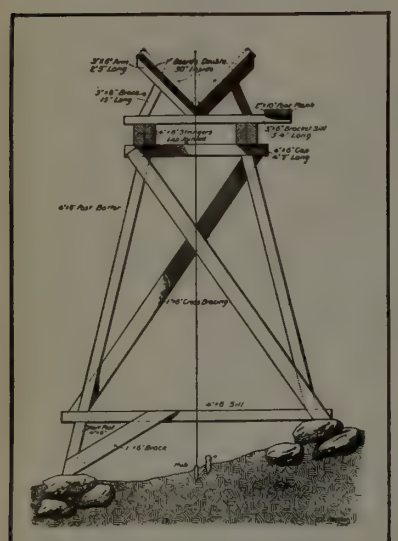
The situation is very well summed up in the following extract from a letter of one of the principal firms of wood brokers, whose opinion was sought on the subject:—"The opening of the Panama Canal is expected to develop imports of wood from the Pacific coast to the United Kingdom, but to what extent it is difficult to forecast, for at present there is only a limited and not a free sale for these shipments, whereas for pitch pine from the Southern States and spruce deals from the lower provinces, there is always a free outlet; however, at the present time market conditions are unsatisfactory. In due time as the supplies of pitch pine become reduced, our opinion is there will be an increased inquiry for British Columbia lumber, but as regards the cheaper whitewoods, such as spruce, Russia has, during the past few years, shipped very heavily, and it is now a strong competitor with Canadian spruce."

The Timber Trades Directory

We are in receipt of the seventh edition of the "Timber Trades Directory," which is a work of unique value to all engaged in, or connected in any way with, the timber and wood-consuming trades. The arrangement is alphabetical throughout, under the following sections:—London and District, the Provinces (arranged in counties), Wales, Scotland and Ireland. The foreign section of Importers and Exporters in the various Foreign Countries for their wood supplies, laying under contribution almost every country in the world. As showing that the book is abreast of the times, we may mention that it includes the names of firms who make a specialty of supplying aeroplane wood, and attention is also given to the important and expanding trade in plywood. The value of the volume is very much increased by the plans of the principal timber receiving docks in the kingdom which are included. This directory is published by William Rider & Son, Limited, 8 Paternoster Row, London, E.C., price 7s. 6d.

The Construction of Flumes for Timber

Methods Used in Erecting Different Varieties of Wooden Logging Flumes— Sectional Metal Type Increasing in Favor



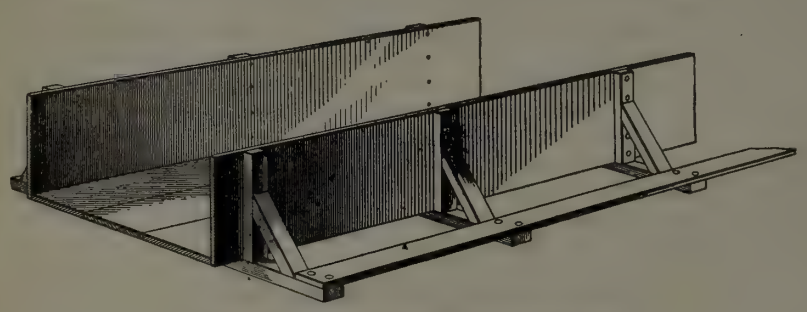
End view of V-shaped Flume

Timber flume construction and fluming are discussed in a bulletin just issued by the department of agriculture. The publication, which is written by the expert lumberman of the forest service, considers the subject from the practical standpoint of the logger who has to get his material out by these means.

The V-shaped wooden flume is held to be superior to the box or square-sided form, because it requires less water and, on the average, less repairs than the other type, is better adapted to act as a slide on steep grades, and offers fewer chances for jams. Concerning a third type the sectional metal flume, semi-circular in form, the prediction is made that it will eventually come into wide use. Such a flume is strong and light, and can be quickly taken apart and transported from one place to another to be set up again.

When building flumes a good plan, says the bulletin, is to erect a small sawmill at or near the upper end of the flume location to saw out the material needed for construction. Such material can be floated down the flume as fast as the latter is built and used for its further extension.

For handling railroad cross-ties, cants, poles, cordwood, and the like, a flume with the sides of the V 30 inches in height is large enough. For handling logs, piling, long timber, or brailed sawed

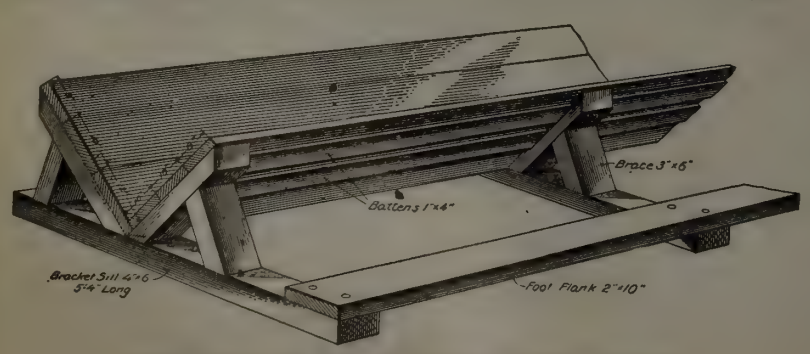


Common Form of Box or Square Flume.

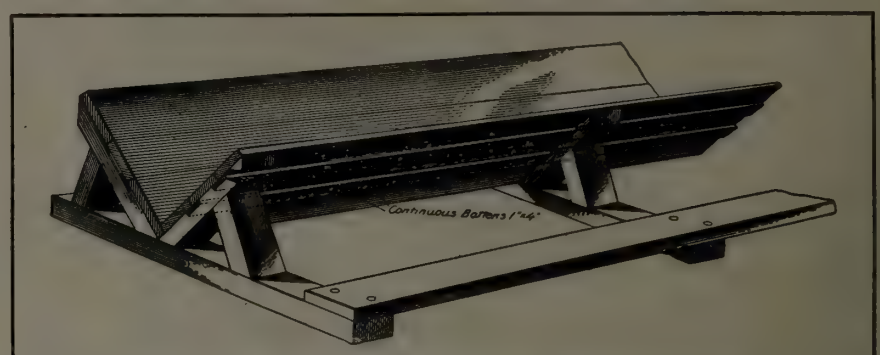
lumber, a height of from 40 to 60 inches is recommended. The best angle for the V is put at 90 degrees.

Flume lines should be surveyed with enough care to ensure evenness of grade. Grades should be kept below 15 per cent wherever possible, and the best results are obtained with grades between 2 and 10 per cent. A careful preliminary survey, followed by a location survey, using a transit and level, will make it possible to obtain a reliable profile map which will serve to show the prospective operator what the grading should be at different points along his line.

Abrupt curvatures in a flume should be avoided, for they are likely to cause jams. Curves should rarely be permitted to exceed 20 degrees. The longer the material to be handled in the flume, the less abrupt should the curvatures be. It may be necessary to blast



View of Flume showing dimensions of different parts.

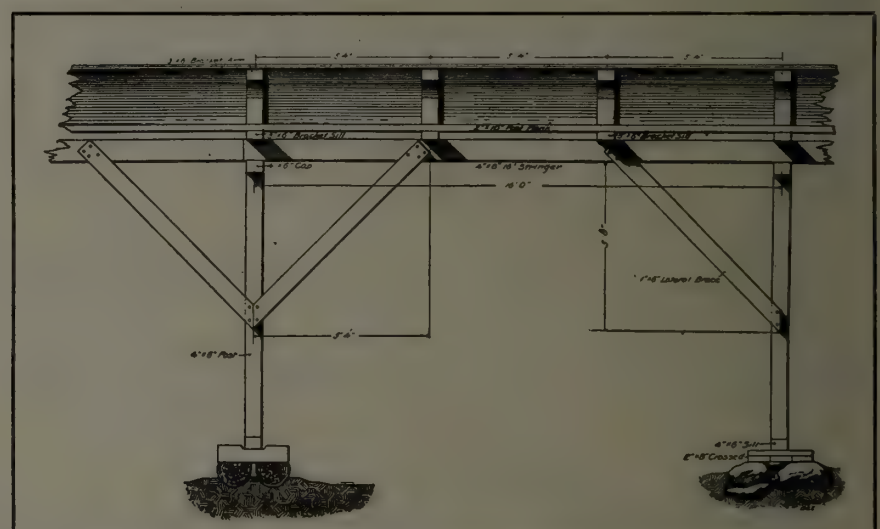


Side view of a Flume constructed with continuous battens.

out rocks and boulders, or projecting points of bluffs, or to trestle, or even tunnel, to eliminate abrupt curves or maintain an even grade.

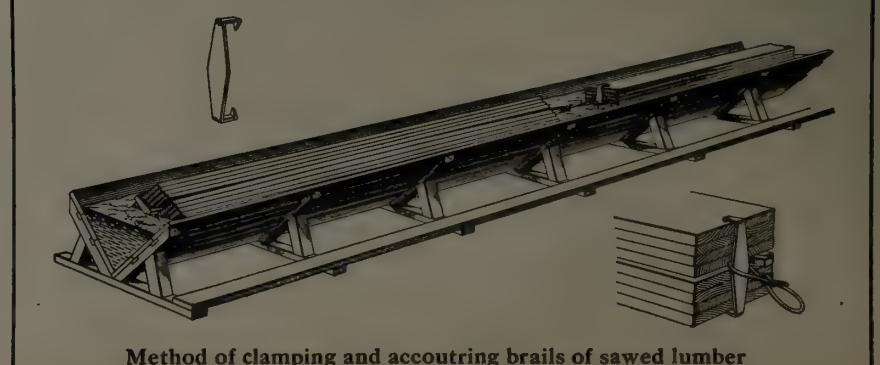
Some flumes are built with only the lining or inside of the box of sawed lumber, the brackets or frames which support the sides of the V being made from round pole wood flattened on one side, and the sills, stringers, braces and trestling of small round timber or poles. Sawed material is recommended for flume construction, however, wherever it can be obtained at reasonable cost.

The "boxes" or sections of a flume vary in length from 6 to 20 feet. Sometimes the boxes are made of only one thickness of boards, but more often of two thicknesses with the joints broken by varying



Side view of V-shaped Flume showing method of construction and lateral bracing.

the width of the boards. Sometimes, also, a single thickness of boards is used, with battens spiked over the joints on the outside in the sections between the brackets. In still another form the battens are continuous. On curves the boxes should be shorter than on straightways, and the bents, arms, and braces correspondingly closer spaced. In general, on curves of from 6 degrees to 10 degrees, the boxes should be jointed at least once in every 12 feet; on curves exceeding 10 degrees and less than 15 degrees, every 8 feet; and on curves of more than 15 degrees, at least every 6 feet. Very abrupt curves also require increased bracing, in addition to shorter spacing of the



Method of clamping and accoutring brails of sawed lumber together for shipment.

arms and brackets. Flumes should also be strongly reinforced at points where extensive shipping is to be done or much material loaded into the flume over the sides.

If the storage facilities at the lower end of a flume are not sufficient for all the material that can be handled during the period in the spring when melting snow and early rains furnish an unusual volume of water, the construction of small holding reservoirs or "catch basins" at different points along the line is recommended. These may be formed by damming up some small stream; or natural ponds, favorably located, may be used for the purpose. In this way such material as it is not necessary to handle clear through at once can be diverted temporarily. A small artificial pond or reservoir at the upper end of a flume in which to "land" or "bank" the material to be shipped is also advisable, especially when handling logs, crossties, or heavy manufactured material of any kind.

Telephones are recommended as adjuncts to the operation of a flume. By their use a serious break or jam can be reported immediately to the head of the flume to prevent further shipment of material. A telephone also makes it possible to notify the men at the upper end of the flume just what material to ship and when to ship it.

A flume recently built on Rochat Creek, near St. Joe, Idaho, is cited as a good example of modern V-shaped flume construction. This flume, which is unusually large and built to handle heavy logs and long timbers, is said to have cost approximately $8,000 per mile for the five miles, including the cost of constructing a wagon road and telephone equipment. Other flumes are cited costing from $2,000 to $7,000 a mile.

Toronto Lumbermen's Club Joins Board of Trade

A meeting of the Toronto Lumbermen's Club was held on Friday, July 3rd, at which it was definitely decided to affiliate with the Toronto Board of Trade. The Board of Trade have completed arrangements for securing the top two flats of the new Royal Bank Building at the corner of King and Yonge streets, where excellent accommodation will be provided for luncheon purposes and meetings. These quarters will probably not be available until about the end of November. It is expected that the lumbermen will form themselves into a Lumbermen's section of the Board, and in this way will be able to exercise a much greater influence upon matters of general importance to the trade than they could in any other manner. Until the new quarters are available, it is planned to hold weekly luncheons of the club at some hotel or restaurant, as has been done during the past few months. These meetings have all been well attended and the members are enthusiastic in regard to the proposal to join the Toronto Board of Trade.

Membership in the Board of Trade, for the balance of the present year will cost $6, and, after the first of the year, the fee will be $25 annually. Those who do not join before the first of January next, will be called upon to pay an initiation fee of $25 in addition to the annual fee. Those who join before that time will escape this payment. The indications now are that practically every manufacturer, wholesaler and retailer of lumber in Toronto, and many from outside points will join the Lumbermen's section of the Board of Trade. Application forms can be obtained from the secretary of the Board of Trade, or from the temporary secretary of the Toronto Lumbermen's Club at 220 King Street West, Toronto.

Vancouver Concatenation a Great Success.

The lumbermen of Vancouver made an excellent record for themselves as entertainers, during the recent convention of the Pacific Ad. Clubs in that city. The convention took place on June 11th and 12th and was largely attended. A magnificent pageant was arranged by the lumbermen of the city of Vancouver in which many other industries and neighboring municipalities took part. Everything from doors to bungalows and large timbers were shown in the lumber floats. In the evening a record Concatenation of Hoo-Hoo was held at which J. G. Robson, Vicegerent Snark for the western district of British Columbia, presided. No less than forty-seven kittens were put through the test and admitted. Those who were in charge at the Concatenation were:—

Snark—L. R. Fifer, Seattle, Wash.
Senior Hoo-Hoo—Ed. McDonald, Vancouver, B.C.
Juniors Hoo-Hoo—George Cornwall, Portland, Ore; T. M. Shields, Seattle, Wash.
Bojum—W. P. Lockwood, Seattle, Wash.
Scrivenoter—Paul E. Murphy, Vancouver, B.C.
Jabberwock—P. V. Fau Vel, Vancouver, B.C.
Custocatian—J. Charles Dietrick, Vancouver, B.C.
Arcanoper—J. V. McNaulty, Vancouver, B.C.
Gurdon—L. E. Snell, Vancouver, B.C.
The following is the list of the kittens:

The Kittens

E. W. F. McMullan, Bradner; D. J. O'Donnell, Eburne; E. L. Munroe, Vancouver; F. C. Armstrong, Vancouver; R. P. Stewart, Vancouver; E. V. Saskett, Vancouver; H. J. Sheehan, Vancouver; A. L. Johnson, Vancouver; R. E. Greenwood, Vancouver; Gilbert Warren Hayes, Vancouver; Mark Richardson, Vancouver; F. C. Taylor, Vancouver; J. F. Fravel, Edmonton, Alta.; S. V. Trapp, New Westminster; D. B. Campbell, Vancouver; George Elley, Vancouver; Harold Bradley, Vancouver; G. E. Wilton, Vancouver; John Hanson, Vancouver; Otto Westendorf, Elmore Station; J. A. McMillan, Vancouver; David H. Loughud, Elmore Station; A. G. Kidd, New Westminster; C. E. Dorman, Vancouver; H. R. Mackenzie, Port Moody; W. B. Cutler, Port Coquitlam; Charles Firth, Vancouver; Thomas Millard, Vancouver; G. W. Rittman, Vancouver; E. P. Demens, Vancouver; R. E. Madland, Vancouver; T. D. O'Connell, New Westminster; H. E. Benner, Vancouver; W. D. Raven, Fraser Mills; G. A. Kirk, Vancouver; E. J. Conner, Vancouver; P. K. Mackedie, Vancouver; R. T. Philbin, Vancouver; E. T. McLennon, Vancouver; Albert Fraser, Vancouver; C. T. Rollston, Vancouver; W. E. Ruemelin, Vancouver; W. H. Nelson, Vancouver; A. S. Fox, Vancouver; H. A. Cheever, New Westminster; N. R. Whitlall, New Westminster; Thomas McLarty, Eburne.

Canal Charges on British Columbia Shipments

The rate established for carrying cargo through the Panama Canal, $1.20 per ton, is regarded by shipping companies on the North Pacific coast as sufficiently low to result in great benefit to British Columbia in the transportation of products of the Province to the Eastern markets, says a recent United States consular and trade report. This is especially true of copper and other minerals. The toll assessment is made on the basis of the vessel ton, the standard measure of which is 100 cubic feet of space, and not on a shipping ton of 2,240 pounds. The canal toll charges will therefore add a comparatively smaller amount per net ton weight to the freight rate on commodities of lesser bulk than on those occupying greater space.

The following tabulation of 18 articles which will figure largely in canal shipments from British Columbia shows the number of cubic feet of bulk of each item per actual ton, the number of shipping tons (2,240 pounds) to each vessel ton, and the toll per shipping ton, on the basis of the Government toll of $1.20 per 100 cubic feet.

Articles	Cubic feet per long ton.	Number long tons per vessel ton.	Added charges (minimum) per long ton.	Articles	Cubic feet per long ton.	Number long tons per vessel ton.	Added charges (minimum) per long ton.
Lead	8	12.50	$0.096	Wheat	47	2.13	$0.564
Copper	18	5.55	.216	Oats	70	1.43	.840
Zinc	87	1.15	1.044	Lard	60	1.66	.720
Cement	40	2.50	.480	Beef (tierces)	60	1.66	.720
Coal (average)	45	2.22	.545	Sugar	47	2.13	.564
Oil (average)	56	1.79	.670	Hides (green)	35	2.85	.420
Lumber (yellow pine)	42	2.39	.504	Hides (dry bales)	85	1.17	1.020
Wood pulp (rolls)	114	.88	1.368	Whalebone	130	.76	1.560
Paper	70	1.43	.840	Tiling (clay)	100	1.00	1.200

It should be carefully noted, however, that the amount of tolls charges per weight ton of cargo as here given does not represent the actual additional charge that will be made by the steamship lines on account of the canal tolls. Every vessel passing through the canal carrying any cargo at all must pay the same tolls as if it were fully loaded, the charge being made on the vessel itself and not on the cargo, and being paid by the owners of the vessel. The amount added to the shipping rate on account of the canal tolls will therefore be higher than the figures given, which assume that every ship is loaded to capacity.

Court Reverses Timber Limit Judgment

The Court of Review, Montreal, has reversed the decision of Mr. Justice W. A. Weir in the action brought by Mr. E. J. Rainboth, surveyor, of Ottawa, against Mr. J. O'Brien, railway contractor, for a quarter interest in timber limits, valued at $2,000,000, in the district of Pontiac, P.Q. The plaintiff based his case on a covenant entered into with O'Brien in 1901, wherein the latter had undertaken to retain the services of Hon. Rodolphe Lemieux, K.C., to acquire for both O'Brien and Rainboth, by private sale from the provincial government, the rights to the timber limits involved. The limits had been put up for sale by the government and it was stipulated in the Rainboth-O'Brien agreement that the price to be paid was not to be greater than the upset price fixed by the provincial authorities. Hon. Rodolphe Lemieux, however, failed to put the deal through, but some time later M. J. O'Brien secured the rights of the limits. A few years later plaintiff commenced an action demanding a quarter interest, by virtue of the agreement. Mr. Justice Weir gave judgment for him, condemning Mr. O'Brien to pay $500,000 should he fail to account to plaintiff for the quarter interest. The Appeal Court, in reversing the judgment, found that Hon. R. Lemieux having failed to carry through the deal, the agreement between the parties was at an end. It was also held that the conduct of the plaintiff subsequent to the failure of the deal and his long silence up to the commencement of the action showed that the defendant's plea was well founded. Plaintiff's action was therefore dismissed with costs in both courts.

Commercial Importance of Douglas Fir

The Great British Columbia Timber Production of Which is Rapidly Increasing —Its Wide Variety of Uses in East and West

By R. G. Lewis

B. C. Douglas Fir

It is only within comparatively recent years that the commercial woods of the Pacific Coast have begun to invade the eastern markets. During that time Douglas fir has won for itself a place among the most important woods of Canada. During 1912 a total of 889,861,000 board feet of this material was sawn into lumber in Canada, forming over a fifth of all the lumber produced in that year and holding third place on the list. The production is increasing relatively to the other woods and will undoubtedly surpass that of white pine in a few years, as the existing supplies of that wood disappear.

The natural range of the tree in Canada is confined almost entirely to the province of British Columbia. Small quantities of the wood are sawn in Alberta from the east slope of the Rockies, but these are of no commercial importance. To the south, in the United States, the tree is found in commercial quantities through Washington, Oregon, California, Idaho and Montana, and grows as far south as Mexico. In British Columbia, the tree is known to occur as far noth as latitude 55, although its northern limit has not been accurately established. Douglas fir reaches its highest development near sea level in southeastern British Columbia.

No tree surpasses this in symmetrical form of trunk and few equal it in size. Larger timbers are sawn from Douglas fir than from any other tree in America with the single exception perhaps of California redwood. If we consider that, in Canada, spruce is cut from at least five different species and white pine from two, it is probable that no other single species furnishes as much of Canada's lumber at the present time. In the United States, in 1912, the wood came second only to the hard pines from the southern states and these are cut from as many as ten species; so, Douglas fir furnishes much more than any other single species in that country.

The Largest Tree in Canada

Douglas fir (Pseudotsuga mucronata) is the largest tree in Canada and reaches, under average favorable growth conditions, a height of 180 to 190 feet, and a diameter of 3½ to 6 feet. It is long lived; one tree eight feet in diameter showing an age at the stump of 435 years, and the average of mature timber being 200 years.

The wood is variable in texture, color and hardness, depending on differences in soil and moisture conditions, and rate of growth. Old, slow growing trees produce wood that is soft, fine grained and straw yellow in color. The wood of fast growing trees is harder, coarser and darger in color. These differences have given rise to the names "yellow fir" and "red fir" among the lumbermen, and by many it is believed that two distinct species exist. The fact that "red" and "yellow" fir can be sawn from the same tree shows that the differences depend entirely on different rates of growth.

The wood of Douglas fir is strong, straight grained, fairly resilient, resinous and fairly hard for a coniferous wood. The lumber is difficult to season without causing case-hardening, difficult to nail without splitting and liable to such defects as pitch seams and twisted grain. When sawn with a flat grain the wood shows an attractive figure and can be stained to imitate more costly woods. In the Western States the wood is sometimes stamped to imitate quartered oak.

In British Columbia and the Pacific Coast States, this wood is used for almost every purpose to which a softwood could be put. To enumerate these uses, which depend on the cheapness and abundance of the wood rather than its qualities, would be of no value in explaining the uses for which it is specially fitted.

Used Most Extensively in Rough Construction

Douglas fir is used in greatest quantities for rough construction work such as, bridge building, wharf construction, and the building of heavy framework of all kinds. It is used in the round for mining timbers and piling, and its use for these purposes depends on its strength, lightness and the dimensions in which it can be obtained clear of defect. More Douglas fir is used in mining operations in Canada than any other wood, large quantities of dimension stock being used for "square setting" in metal mines.

Fir trees form over ten per cent. of all those purchased by Canadian railway companies in an average year, and many poles of this material are also used. The use of the wood for cooperage is restricted by the strong resinous odor and taste that the wood imparts to the contents of the barrel. This resin is difficult to "kill" and when the wood is used for barrels to contain alcohol or food stuffs the barrels must be parafined.

In eastern Canada, Douglas fir is used in greatest quantities by boat manufacturers for planking tugs and wooden steamers and for building heavy barges and scows. Spars for all kinds of vessels are made of this wood which is now preferred to all others for this purpose on account of the superior form of the tree combined with the good qualities of its wood. The wood competes with the imported hard pines for beams and spars of derricks, and for the frames of dredges, pile drivers, and all marine structures.

The next most important use of this wood in the east is in the manufacture of railway rolling stock. Douglas fir can be used in every part of a car from the roof to the sills but as a rule its use is confined to the long body sills and to roofing and siding in freight and baggage cars. In the Maritime Provinces, this wood has been driven out of the market for this purpose, by long-leaf pine which can be sold at a lower price on account of the closer proximity of the supply, but its use in Ontario and Quebec is very extensive.

A Favorite Western Building Material

The use of fir for building material is of course much more universal on the Coast than in Eastern Canada. On the Prairies large quantities are purchased for sash, doors, framing, flooring and interior finish. Further east its use is confined to framing and occasional decorative panel work. On the Pacific Coast, edge grain Douglas fir flooring is valued above all other woods native to the country, and is everywhere considered superior to any other American softwood. For most interior decorative work the resin in the wood must be "killed" by careful seasoning. Panels for walls or door panels are sometimes made of rotary sliced veneer. The logs must be steamed for about three days before being put on the veneer lathe but the resulting tough veneer with its odd, attractive figure, well repays any trouble taken in its preparation.

For all kinds of cabinet work, fir is used to some extent in the west, and while it is cheap and abundant, it serves the purpose well enough for the cheaper class of products. In eastern America there are so many cabinet woods that are immensely superior to it that its use is comparatively rare.

Durable and Impervious to Water

The relative durability of the wood and the fact that it is practically impervious to water has been responsible for its use for making wooden pipes. Continuous stave and jointed conduits are used to an enormous extent in the west in power, mining, and irrigation projects, as well as for water supply pipes for cities and towns. The smaller pipes are made in standard lengths and are usually wound with mild steel wire and coated on the outside with some asphalt or tar preservative, their staves being made of flat grained lumber and grooved at the edges. Larger pipes are usually put together in the place where they are to be used. Their construction is continuous, the staves being placed so as to break the joints. The staves of these larger pipes are not grooved but merely bevelled at the edges and the pipes are made watertight by drawing the staves together with steel bands and bolts. The use of fir in this industry is closely connected with its use for silos, wooden pumps and tanks for water, brine or chemicals.

Douglas fir is often preferred to hard pine for lock gates on account of the large dimensions obtainable, for gates at railway crossings, machinery framework, elevators, cross-arms, flag poles and scaffolding.

Some of the less important uses of this wood include:—poles, reaches and body work in vehicles, saddle trees, hay and stock racks, well drilling machinery, agricultural implements, portable poultry houses, fencing, spokes and arms of transmission pulleys, foundry flasks, cement pipe jackets, pike poles and windmill pump rods.

The utilization of sawmill waste of Douglas fir in the manufacture of turpentine is still in the experimental stage in this country. Wood containing a large percentage of pitch is selected from

the waste at a mill and this is distilled, yielding turpentine, pyroligneus acid, tar oils, wood creosote, pitch and charcoal. The yield depends on the resinous content of the wood and as this is very variable the yield is also very variable. One of the chief obstacles to the development of this industry in the West is the uncertainty of the market for the products.

Douglas fir pulp is sometimes used on the Coast for the manufacture of book and magazine paper being mixed with pulp made from black cottonwood to give this the requisite strength.

An Excellent Paving Block Material

Fir paving blocks have always been popular in British Columbia and the western United States and are becoming more popular in the east. The blocks are given a heavy treatment with some preservative, usually creosote or coal tar, and are carefully laid on a firm foundation of concrete. The failure of many wooden block pavements can be attributed to improper methods of laying and careless work in this respect has been a bad advertisement for this class of pavement. A well laid creosoted Douglas fir pavement is practically indestructible and the softness of the wood and its resiliency make it noiseless, dustless and safe for all kinds of light or heavy traffic.

The preservative treatment of this wood has always been a difficult operation. Seasoned wood is hard and refractory and cannot be treated economically by a pressure method. Most of the wood is now treated when in the unseasoned state by a method which combines seasoning and treating in one operation.

It would be a waste of time to enter into the pros and cons of a long drawn out controversy that has been going on for many years as to the relative strength values of Douglas fir and long-leaf pine. If the differences between the two woods are so small that they can give rise to an unsettled controversy they cannot be of much importance to the manufacturer.

British Columbia Lumber at Glasgow

On account of established custom the credit due to imports into the Clyde from British Columbia is not given, from the fact that all the lumber imported is sold as Oregon, says a recent Trade and Commerce report. The desire, however, is to give to British Columbia lumber a preference so far as market conditions will permit. The limited trade with British Columbia is not due to goods being obtained elsewhere, but from the quietness of business generally, and the demand being anything but active.

The following figures may be of interest:—

Oregon Pine, Logs and Planks

Year	Imported to Clyde.
1911	253,850 cubic feet
1912	571,050 cubic feet
1913	360,000 cubic feet

At March 31, 1914, there was in stock, decks 29,279 cubic feet, logs and planks, 357,864 cubic feet. This quantity is looked upon as being too large.

It is thought that the opening of the Panama Canal will improve the prospects of British Columbia trade and that this lumber will in a measure displace pitch pine from the Southern States. Time and freight has been against British Columbia, but the prospects for future business are good; an active and aggressive campaign will bring results, as buyers here all express the hope that British Columbia will come in for a much larger share of the trade.

The undernoted are the recognized sizes used:—2½ x 5 full, 3 x 5 full, 20 foot and up long—average 26 to 27.

Clear lumber free from sap and all other defects. These are used largely for ships decks.

Three-inch to 6-inch and up, length 12 feet 0 inch used principally by sawmills.

Long square timber 50 to 70 feet by 15 to 20 inches square, also 12 inches square.

The general opinion is that the opening of the Panama Canal will enable business to be done by cable, in order to avoid the expense of carrying stocks. It would be well for British Columbian shippers to take up matters energetically for the future. Buyers here must have some guarantee of probable time of arrival of their purchases; delay of shipments will hinder business.

British Columbia Lumber in South Africa

According to a report presented by the Canadian Commissioner at Cape Town, South Africa, under recent date, the total import of lumber into South Africa in 1913 was valued at £1,220,814 and the import from Canada amounted to £59,732, but there is no record of the proportion supplied by British Columbia. It is probable, however, that three-quarters of the imports of Canadian lumber are from that province, and practically all of this is bought by two firms whose orders go through their London houses or San Francisco agents.

Four months ago there were sent forward and published in the Weekly Report, fifty-three trade inquiries for lumber. This resulted in bringing to the Department 148 inquiries from Canadian producers and out of these there were only three British Columbia firms who asked for information.

With regard to the possibilities of an increase of trade to South Africa from British Columbia on account of the opening of the Panama canal, it is impossible to form any definite opinion as to the immediate future, as no doubt shipment will take place to the nearer markets where a larger mileage is saved.

The larger demand is for a pine shelving 12 inches wide, also for flooring and ceiling. The one essential for a sure and growing trade is some method of official grading such as is used in Sweden; if an official inspection cannot be arranged, let any firm or firms who are anxious for an export trade circularize the trade in South Africa, quoting c.i.f. at any of the ports—Cape Town, Mossel Bay, Port Elizabeth, East London, Durban and Delagoa Bay—and in this letter state plainly the qualities in various grades, and if prices are right, trade is sure to result. The trade buy all qualities; what they want is an assurance that when they order a certain grade they are sure to receive it. Sweden commands this trade and there is no doubt her grading helps her. The grades as accepted from Sweden allow as follows:—No. 1 permits a very few small hard knots. No. 2 permits of a few more than No. 1. Nos. 3, 4 and 5 grade according to the number of knots whether loose or tight. Nos. 4 and 5 also allow wane, shake and almost all faults.

Baltic lumber is not officially graded but certain firms have established a good reputation for standard grade shipments and in consequence Norway is one of the largest shippers to South Africa. There is another quality for which Baltic lumber gets credit by those handling it and that is, it is more easily worked than any other lumber, however, from the many inquiries made for Canadian lumber, it is quite evident the South African trade is anxious for it, if it can be bought under as good conditions as from any other country.

China Needs Railway Ties from British Columbia

A Canadian creosoting company of Vancouver, who produce creosoted Douglas fir ties, state that they are forwarding sample ties to the office of the Trade Commissioner at Shanghai, and quoting prices. The Shanghai-Nankink Railway is interested in the sleeper question, and wants information as to the length of service and c.i.f. prices Shanghai of Douglas fir sleepers, as they will shortly be in the market for sleepers. It is hoped that business will result and be the entering wedge of a large trade with China in railway ties.

The British and Chinese Corporation, who built and own the S. N. Railway, have been recently granted a concession by the government to build a further 1,000 miles of line in extension to the west, and the S. N. R. are also taking over the construction of a line to Ningpo from the Chinese. Ties both for the S. N. R. and the Ningpo line, and possibly the line to the west, will be required, and it is hoped that the sample tie and the price quoted will make a favourable impression.

Other firms might be invited to quote prices for ties c.i.f. Shanghai, both creosoted and uncreosoted.

First Timber Shipment by Panama Canal

A report from Vancouver, B.C., says that a ninteresting shipment of fir has just left the west coast of British Columbia for use in harbor developments in Toronto which the Dominion Government is carrying on. The freighter Robert Dollar carries a shipment of 4,845,000 feet which is said to be the largest timber cargo ever shipped from a B.C. port. In transshipping on the Atlantic coast it will take approximately 165 cars to receive it. It is expected that arrangements will be made for the freighter to pass through the Panama Canal.

Summer Resorter Dislikes Logs

The question whether a lumber company has the right to obstruct a river with its logs and thus prevent a summer resorter from sailing thereon, is in issue in the case of the Holt Timber Company versus Iveson, which was argued before the Supreme Court of Canada recently. The lumber company owns timber in the district of Parry Sound, Ont. In order to market the timber, it must be floated down the Magnetawan River to Byng Inlet on Georgian Bay or down the south branch of the river to the Canadian Northern Railway station and there loaded on cars. In 1912 the mill as Byng Inlet was burned and the logs had to be sent to the station, where a lifting machine known as a jackladder had to be constructed to get them on the cars. Mr. Iveson, who owns a cottage at this point, claimed that the jackladder encroached on his land and that the river was so obstructed by logs as to prevent his sailing on it. The trial judge held that there had been encroachment, awarded him $15 damages and granted him an injunction against unnecessary obstruction of the river. The case was then appealed to the Supreme Court.

Chemical Utilization of Wood Wastes

Outline of the Methods at Present Available for Converting Material into Products of Marketable Value—Report by Forest Products Laboratories

A bulletin upon chemical methods for utilizing wood wastes, prepared by W. B. Campbell, B.Sc., of the Forest Products Laboratory, has been published by the Department of the Interior. After referring to the great quantity of wood taken out of the forests, which never is converted into a marketable product. The bulletin says:

Much has been done by the lumbermen themselves through their various associations to make an asset of many forms of waste wood. This work has been mostly along the lines of using up the small pieces produced by the mills which can be used to advantage by other mills, which do not necessarily require that their raw material be in large-sized sticks. Box factories, spool manufacturers, toy makers and factories making such articles as hammer-handles, etc., are frequently able to use the odd pieces produced in the manufacture of larger articles.

But the vast quantities of shavings, sawdust and edgings mostly go to waste yet, and to these is directed the attention of chemists all over the world, since chemical utilization seems to be the most promising field in this connection.

The object of the following brief statements is to present a synopsis of some of the results already obtained, without going into the details of any of them. While all of these various industries have proved successful—that is, profitable—it should be recognized from the start that in each case much preliminary investigation is absolutely necessary, for what is successful in one locality may prove to be complete failure in another. Most of these industries require a large and constant supply of raw material, expert technical supervision, and frequently a considerable outlay of capital for expensive equipment. The market also has to be considered, particularly in its relation to the particular locality in which the raw material is found. When these conditions are found to be favorable after proper consideration, then it is well worth while going further into the matter.

Manufacture of Pulp and Paper

The manufacture of pulp and paper from wood is an industry which has proved itself stable and of increasing magnitude for a number of years. Almost every kind of wood has been proved suitable for the manufacture of some form of paper, but there are considerations affecting the use of each kind which must always be observed. Most of the pulp is made from the wood cut specially for the purpose, but almost any wood can be used, provided that it is reasonably free from dirt, knots and bark, or that these can be easily removed from it. Sawdust is an exception to this rule on account of the fact that the fibres are cut so short that the pulp produced will not felt properly and the cooking is made considerably more difficult. There are several mills in the United States at present using mill-slabs, shavings and other forms of waste more or less entirely. The advantages of waste wood are, of course, its cheapness and its quantity. There are several disadvantages. It is usually green and full of water, has a large percentage of bark and comes in irregular shapes. Shavings are rather better for the purpose, and, if in sufficient quantity, make very good raw material. Another point to be taken care of in using waste material such as this is, to use the raw material of only one species, or, at least, species sufficiently alike that they may respond to the same treatment. For instance, on account of the relatively large content of resin in long-leaf pine, it will do to treat this in the same way as spruce. Neither will it be satisfactory to work hard and soft woods together in any one treatment, though any of these can be worked satisfactorily if kept separate. The process to be used will depend chiefly on the raw material at hand and on the market for any particular variety of pulp.

Hardwood Distillation

The distillation of hardwood, with the resultant production of charcoal, acetate of lime and wood alcohol, is an industry which is well developed and pretty stable. The latter two products are regularly quoted market articles. Charcoal is usually disposed of locally for domestic purposes, unless there is a charcoal-iron furnace within shipping distance.

Besides the wood cut especially for the purpose, hardwood slabs and other odd pieces of hardwood can be used. Where the wood is not cut especially for distillation, the plant is usually run in connection with a sawmill, so that only the part not suitable for lumber is used for the distillation. Almost any hardwood in pieces three or four inches in length and upward is suitable, but sawdust and shavings are not suitable—firstly, on account of the fact that the small size of the material makes it such a poor conductor of heat that it is impossible to char it completely in the ordinary forms of apparatus used, and, secondly, because the charcoal produced is so finely divided as to make it difficult to cool and handle, and because there is no market for it.

The woods most frequently used are beech, birch and maple, with smaller amounts of other woods as they may occur with the first-mentioned.

Resinous Wood Distillation

The development of the industry of distillation of resinous, or "soft" woods for the production of charcoal, wood creosote and turpentine, is much later than that of distilling the hardwoods, and the practice is not yet standardized to any great extent, though a great deal has been done along this line in the last few years. The value of a resinous wood for distillation is in proportion to the amount of resin, or "pitch," contained in the wood. This resin content is quite variable, even in trees of the same species and in different parts of the same tree, so that some care is necessary in the selection of the wood for distillation to avoid using wood which is too lean to yield a profit.

Pine is the wood most used and is taken mostly in the form of "lightwood." Stump-wood is also used to a considerable extent, but is usually left to the last, since it is much harder to collect and handle. Almost any kind of resinous wood is suitable to some extent, the only question being whether it contains sufficient resin to make the recovery worth while, and so is largely a matter to be considered in connection with the particular location in question. Where sawmill waste is used, the matter of selection is not so important, as the cheapness of this material makes up, to some extent, for the poorer material. This class of material, however, is not rich enough to render the more complex and expensive processes feasible, and the simpler and more rapid steam-distillation processes must be used. This recovers only the volatile oils which were originally present in the wood, and so the process is very wasteful, but is the only one at all successful with this class of material. Destructive distillation plants for resinous wood are the cheapest form to construct. They produce products of rather poor quality, however, and so the market is somewhat restricted. There are also some processes known as "bath processes" in operation. In these the wood is run into a retort and flooded with some high-boiling solvent of the turpentine and light oils. These are heated and extract the oils from the wood, and are then drained off and the oils recovered from the solvent by distillation with steam. Various solvents are used, but rosin appears to be the best at present.

Processes using a low-boiling solvent, such as naphtha, have found increasing use in the last few years, but the decreasing price of turpentine and the increasing cost of solvent has made the business increasingly difficult.

Tanbark and Tanning Extract

Tannin is obtained from the leaves, bark and wood of a great many trees, but only a few of these (practically only hemlock and a couple of species of oak) are used commercially. Usually these are sold in the form of bark and the tanners make the extract themselves. In some cases, however, it may be of advantage to make the extract nearer the bush and save the freight on the bulky bark. The method of extraction is very simple and the extract can easily be concentrated and shipment made easy.

Manufacture of Ethyl Alcohol

This is a process for the manufacture of ethyl (or "grain") alcohol from wood as distinct from the methyl (or "wood") alcohol produced by the destructive distillation. Ethyl alcohol is not poisonous in the same way as wood alcohol, and a very broad market is open for it, if production is made sufficiently cheap. Since the wood used in this process must necessarily be finely divided, almost any kind of waste wood is suitable as the large-sized pieces can be easily reduced to the proper size.

The process used consists of the conversion of the cellulose of the wood into a sugar; the sugar is then fermented to produce the alcohol and this is distilled off. The process is on a paying basis in Europe, and in at least one plant in America.

Cattle Food

Cellulose, or wood fibre, may be converted—at least partially—into a sugar, with comparative ease. There are also several other carbohydrates formed in the process. A considerable proportion of the products so made are digestible by cattle, and, especially when mixed with other products, such as peanut meal, rice meal, alfalfa, it seems to make good cattle food and finds a market.

Manufacture of Oxalic Acid

Finely ground wood fused with caustic soda forms sodium oxalate from which oxalic may easily be produced. The manufacture

of this product may prove profitable, though the restricted market would be against it. A very little wood used in this way would produce all the oxalic acid used in the country. Almost any species of wood is suitable.

Waste Wood for Producer Gas

Several forms of apparatus for the production of producer gas from waste wood have been put on the market lately and are finding considerable favour. The production of power from waste wood in this way is much more economical than burning the wood under steam boilers, especially when small-sized stuff, such as sawdust and shavings, are to be disposed of. The commercial success depends on the demand for the power produced. Any kind of wood can be used, though it is an advantage to have it of fairly uniform size and perfectly dry. The woods with the higher calorific values are, of course, somewhat more efficient.

Further information regarding any of these methods will be gladly supplied by the Forest Products Laboratories, McGill University, Montreal.

Advises Holding Growing Timber

Forestry Expert Tells B.C. Lumber Corporation to Retain Their Limits and Wait for Increased Value

An interesting address upon the timber resources of British Columbia, with special reference to those of the British Canadian Lumber Corporation, Limited, was delivered at the annual general meeting of shareholders of this corporation by Dr. S. B. Sinclair, formerly lecturer at Macdonald Agricultural College, Ste. Anne de Bellevue, P.Q. Dr. Sinclair has been a close student of forestry conditions on the American Continent for many years.

"My investigations during the past year," he said, "have lead to three conclusions; first, the standing timber of the British Canadian Lumber Corporation at the present time is worth at least $1.50 per M.; second, it would be unwise to sell before two years; third, there is special need of co-operation on the part of all.

"For a number of years distinguished foresters, notably Fernow and Pinchot, have pointed out that the amount of standing timber is steadily increasing. There has been considerable uncertainty and difference of opinion regarding the supply of lumber, owing to the lack of reliable scientific data. The Washington Bureau of Labor and Commerce of the United States published, in January of last year, the results of a comprehensive and methodical investigation of the amount of standing timber in the United States, its value and the general outlook for the future. We have now a report which is generally admitted to be fairly accurate as far as the United States is concerned, and it is largely upon the findings of this report that my conclusions are based.

After referring to the total stand of timber in North America and to the prevention of forest fires, Dr. Sinclair said:—"There is universal agreement amongst forestry experts that those who own standing timber and can hold it till the supply in other parts of the country is gone, can ask and get their own price. Corporations who know the situation and are able to hold and wait for this time are doing so. For example, three holders, the Southern Pacific Company, the Northern Pacific Company, and the Weyerhaeuser Timber Company, together own nearly ten per cent. of the entire standing timber in the United States and the Washington report says: 'The first two are not cutting any timber, and the third only a comparatively small amount.'

"Fifty per cent. of the standing timber of the United States is found in California, Oregon, Washington and Idaho, but over four-fifths of the present cut of lumber is from the timber in the Eastern States. It is estimated that the Southern pine will be practically cut out in seven years. My observation is that the period will be shorter.

"In the Eastern States the price is high and the rise so small that there is a rapid cut. In the Pacific North West the rise promises in most cases to equal a high rate of interest and accordingly the cut is small.

"Speaking of the forests of Oregon and Washington the report says: 'Their price is low as yet, partly because the freight rates to the markets are so high, but they will sooner or later play an overwhelmingly important role in the lumber markets, and their importance will, in all reasonable probability, be attested by an enormously increased price.'

"The report gives the results of two hundred and sixty-six returns on the stumpage value of Douglas fir and says: 'In the Coast and Puget Sound sections of Washington State, the great centres of Douglas fir lumber production, the extreme stumpage prices quoted were fifty cents and five dollars per M., with an average of about $1.75 per M.'

Upward Tendency of Stumpage Values

"'Stumpage values have, at intervals, come to a standstill temporarily, but the tendency has been steadily upward and no advance has ever been lost. There has been no retrogression except on the manufactured product. This has been uniformly and invariably true; depressions in the lumber market have at times lessened transactions in timber lands, but no decline from fixed valuations has ever been recorded.'

"In this connection, a prominent mill-owner in Western Oregon informed me that, owing to the low price of lumber, he had run his mill at a loss during the past year. His timber supply being sufficient for only six more years, he found it necessary to look for new timber limits and he found to his surprise that it was impossible to secure anything of standard quality for less than $2.50 per M. The Washington report places the price of Western Oregon timber below that of Puget Sound near your limits.

"In so far as I could learn the situation in British Columbia is similar to that in Oregon and Washington. There is a temporary lull in milling operations, owing to the general business depression. Except in the case of companies, however, who are compelled to sell to avoid liquidation, it is impossible to buy timber such as that owned by your company for less than $1.50 per M.

"In estimating the value of standing timber the following points are to be considered—species, quality, logging conditions, freedom from danger from forest fires, accessibility to mills and market and neighboring holdings.

Dr. Sinclair spoke of the average value of timber upon the British Canadian Lumber Corporation's limits and, in conclusion, said:—"Speaking generally slow growth produces good lumber, rapid growth poor lumber. The average growth of good pine is about one inch diameter in seven years. The Southern pine of the United States has been grown in less than fifty years. Your timber has taken more than three hundred years to grow and could not be produced in a shorter period. The supply of the highest grade timber, such as I saw in your Vancouver and New Westminster mills, is limited to a small area in America.

"The opening of the Panama Canal promises a reduction of about fifty per cent. on freight rates to the Far East, a most important consideration for higher grade lumber.

Depression Followed by Rapid Advance

"There was general depression in the price of timber lands from 1896 to 1900 and this depression was succeeded by a rapid and continued rise. For example, a tract of Mississippi land of seven thousand acres was offered in 1899 for $5 per acre and was refused. It was sold in 1906 for $22, and in 1907 was bought at $30 by the company that refused to pay $5 eight years before. The weight of evidence is that the general increase from 1897 to 1907 was threefold, and there is reason to believe that during the next ten years history may repeat itself.

"In the light of foregoing facts it would seem unwise to sell (unless under compulsion) for several years to come.

"In my opinion, it is important that every shareholder inform himself as fully as possible regarding the genuine value of your assets. It is also desirable that nothing be said or done to depreciate this value, that all realize that a few years of patient waiting will probably be necessary, and that all stand loyally together in their efforts to cope with the present depression, which bids fair to be of but short duration."

Forestry Magazine Will Study Lumbering Problems

Having inaugurated a policy of keeping in the closest possible touch with the forestry and lumbering problems in the chief forest regions of the United States and Canada, the American Forestry Association has arranged with E. T. Allen, of Portland, Oregon, Forester of the Western Forestry and Conservation Association, to assist it in presenting through its magazine, American Forestry, those of the Pacific Coast. These are the problems which face the owners of the forests, those who cut, manufacture and market the lumber, and those who wish to secure the best use of the forests and their products. Mr. Allen is thoroughly well informed regarding the Pacific Coast conditions and his wide knowledge of the subject and his grasp of future possibilities will enable him to render valuable aid in this important work. This series of articles, now being prepared, for American Forestry, will treat of every important phase of forest and lumbering conditions, and they will give to the general public a knowledge of what the forests of the western coast mean to users of lumber,—such a knowledge as comparatively few people now possess.

Hydro-Aeroplane Flights at Canadian National Exhibition

Visitors to the Canadian National Exhibition this year will have the opportunity of witnessing hydro-aeroplane flights. Arrangements have been made whereby W. A. Dean will fly his machine daily, starting from the lake and circling over the Exhibition Grounds. There flights will be given at various intervals during the afternoon, but one will be held at the fixed hour of six o'clock every day. A sufficient height will be maintained over the grounds that in case of accident there will be time and room to glide out over the water before descending.

Three Types of Business Management

Third of Three Articles Analyzing the Composition of the Manager's Policy—the Efficient Type

By E. St. Elmo Lewis*

THE efficient manager has one object constantly before him—the elimination of waste. He realizes that every bit of material in his place can be used at 100 per cent. efficiency or less; that every bit of energy that he pays for can be used at 100 per cent. efficiency or less; and that time can be used in the same way.

He knows that things do not happen, that there is a cause for every effect.

He knows also that men can be taught, for he is teaching them. He knows that stenographers in an office can be taught accuracy, speed, English, or how to write a letter. He takes from his department manager the time wasting job of acting as primary school teacher to his stenographers.

He knows that foremen should simply supervise, they should not be expected to teach men the best ways of doing work. He knows that men vary in capacity, but he knows also that men learn to do better work at twenty-five than they did when they started as apprentices; that the best men have a certain way of doing things that can be taught to others, and therefore a plant can be taught how to increase production. It is a question of analysis, planning and executing. Therefore he goes at the proposition of raising efficiencies in a definite, concrete, tangible way, something like this:

Analyzing Efficiency Factors

1.—He makes time studies of the work.

2.—He places these studies in the hands of trained thinkers and scientific men who plan the work and fit the schedules.

3.—He establishes the idea of functional foremanship.

4.—He makes improvements in shop methods necessary to get the greatest possible product from the worker.

5.—He puts a wage system at work that will place a premium upon a man who exercises the greatest efficiency. A big problem? Of course it is, but it must be solved as nearly as may be, must it not? Its bigness does not affect its pressing call for a solution.

The efficient manager, after analysis, adopts a plan starting with the Taylor System, or the Emerson System, or any of many, which all come under the general term of scientific management. He starts from somewhere to go somewhere in his management.

Suppose he decides to start with the Emerson System. He tests his present management against the twelve Principles of Efficiency as Mr. Emerson calls them:

1.—Definite Plans and Ideals.
2.—Supernal Common Sense.
3.—Discipline.
4.—Competent Guidance.
5.—The Fair Deal.
6.—Despatching.
7.—Reliable, Immediate and Adequate Records.
8.—Determination of Standards.
9.—Standard Practice Instructions.
10.—Standardized Conditions.
11.—Standardized Operations.
12.—Efficiency Reward.

While this is not a treatise on efficiency, but on cost keeping efficiency, intended to show how to eliminate the waste of time, work, thought, material (all of which spell m-o-n-e-y in business) in the handling of costs, yet it is necessary to explain the philosophy of efficiency if we are to handle costs efficiently.

No manager can escape the necessity for knowing the value of what he does when it comes to costs any more than he can of any other part of his work.

"Increase the net," is the cry.

This manager realizes that all work in a factory, in an office, goes by dependent sequence. No man's work stands alone.

The other day a manufacturer was asked what he thought his efficiency was in different departments. He said that—"He thought his efficiency was 75 per cent. at least," and he forgot the law of dependent sequence. If the raw stock department was 75 per cent. efficient, and the department to which it first went 95 per cent. efficient and the next two were each 75 per cent. efficient at the end of the fourth operation, the end result would be only 40.1 per cent. efficient. If each of the four departments were 80 per cent. efficient, the end result would be 41 per cent. efficient.

If one department were 75 per cent. efficient and another department were 125 per cent. efficient, the end efficiency would only be 93.75 per cent. efficient. The efficient manager, therefore asks of the cost department such records as will assist in the establishment of a complete record of the efficiency and of how much it has cost to gain the amount of efficiency that has been attained.

Establishing Standards of Value

Values must be established as well as costs, and for this purpose we must have every order that goes through a plant, every function of department standardized, establishing the best as a standard of value, by which to judge our efficiency.

Out of that will come the best—

1.—Rate of pay for each man and woman.

2.—Number of people to be employed in doing a particular work.

3.—Kind of men for each kind of work.

4.—Standard time for the operation.

These standards should be indicated on the same records by which the system tells the actual things that were done in the work. In other words, it should show standards as well as performance on each record.

If the comptroller is necessary to show where money goes, then the efficiency manager is necessary to show what is obtained for the money. The cost accountant should be concerned principally with arranging his systems of cost-keeping so that reliable, immediate, and adequate records may be kept of the value of the commodities received for the money invested.

The same record should show:

(a) The comptroller or auditor where the money goes.

(b) The manager where standards of value have been realized, and where losses are occurring in—1. Time; 2. Labor; 3. Material.

In the past the cost accountant has too frequently been merely a man of figures, having little or no conception of what the figures really meant. He was essentially a bookkeeper who didn't know the significance of the things he was handling, and he was only concerned with totals, averages, percentages. So long as he secured his balance, he was satisfied with his results. He knew of no standards for comparing with values.

In failing to realize that accounting really furnished balance sheets which are used as efficiency charts, he failed to set up a practical standard for his own work. Balance sheets can be veritable miles of misinformation. Paper profits have misled many a manager.

A plant can be made to show fine profits on the balance sheets for a time. Efficiency charts would show up the starvation at a glance.

The Cost Accountant and the Manager

Before the cost accountant can become efficient, the management must become efficient. If the management is not efficient, the cost work will not be organized, functionalized, so that it can reflect truly, adequately and completely the real value of the business performance. Therefore, the cost accounting has to reflect what is actually being done. No matter how efficient the cost accountant may be, he cannot make an inefficient plant, or an inefficient organization, efficient. He can reflect only what an organization is doing, showing blanks for those kinds of records which the management handling the business does not permit him to make.

On the other hand, no matter how efficient may be the plan or organization, no matter how efficient may be the individual member of the organization, if the cost accounting records are not efficiency records, there will never be any adequate information placed before the comptroller, or the general manager, that will give them an opportunity to gauge accurately, in the first place, what has been received for the money, and in the second place, where inefficiencies may be eradicated.

The manager under any efficient plan of organization must realize that wastes, principally those which he does not now see, are the most vital concern of management. The "door" type of American manager wants volume of production, volume of sales, volumes of this and volume of that. He does not realize that efficiency is concerned with the net. That is the final as well as the primal test of his efficiency, of his real worth to the organization.

Waste is the Largest "Fixed Charge"

An engineer of national prominence said the other day—"It is absolutely bewildering to note how managers will permit continuous, relatively large wastes to continue rather than incur a pay roll expense that will stop it." Let such men understand that waste is the largest "fixed charge" in most factories."

The efficient manager will therefore develop his cost system along

*Adverising Manager of the Burroughs Adding Machine Co.

the line of obtaining efficiencies as against standards set up by those who are most familiar with what machines and skilled men can produce when all these are at the highest efficiency of production.

He knows a cost system to be a means to an end, and not an end in itself.

He knows that knowing costs is but the beginning of knowledge, and that unless he has some ideal standards with which to compare his costs he is still running the business with but half the information necessary to realize its greatest possible success.

What is the real difference between the rule-of-thumb manager and the systematic manager?

The former guesses at what happened and the latter knows what happened. Neither necessarily knows what the value of the happening really is—the latter knows what it cost, the former can't be sure, but he can "pay his bills"—sometimes.

The difference between the systematic manager and the efficient manager is fundamental. The former occupies his time in writing. manager is fundamental. The former occupies his time in writing history. He is thinking of yesterday; he is always at least one day behind the work; generally he is from a week to a month behind.

The efficient manager is writing prophecies. He is scientifically determining what is going to happen the day after tomorrow. He is systematic, too, but his system is projected into the future. He does not care what happened last week. He is never later than to-day. He was preparing for to-day six months ago.

Step into a great business—get behind the scenes a moment, peer into the laboratories. There are unique furnaces for steel making, there are schools for man training, there are machines that will not be placed on the market for five years—there are careful analyses of markets to be developed two years from now.

The researches are being made—men with note books and open ears and eyes are travelling—engineers are experimenting—all preparing for to-morrow.

When the day comes managers go ahead methodically developing their day-before-yesterday plans, and the game of doing business pays for the prophetic vision. As battles are not fought under the inspiration of the moment, "so the efficient manager never waits for the fighting. He always forces it."

That is the difference between the various types of managers—the difference between their business—the difference between their cost systems. It appears in the net!

Ontario Sells Three Mississaga Timber Berth Rights

The right to cut white and red pine on three timber berths in the Mississaga forest reserve has been sold by the Ontario Department of Lands, Forests and Mines by public tender. The privilege on berths 1B and 1C went to J. J. McFadden, of Renfrew. On lumber cut on the former limit he will pay a bonus of $3.55 a thousand feet, in addition to the dues of $2 a thousand and ground rent of $10 a square mile. On lumber cut on the latter he will pay $4.56 a thousand feet, the dues of $2 and the ground rent of $10 a square mile. Berth 1D was secured by the Hope Lumber Company, of Bay City. It will pay $5.55 a thousand feet in addition to the dues and ground rent. Each berth contains 36 square miles. In each case the highest bid was accepted.

Lower Ottawa Forest Protective Association

The staff of the recently organized Lower Ottawa Forest Protective Association, Limited, to which all the lumbermen and paper manufacturers of the Ottawa and Gatineau districts now belong, will comprise a manager, three inspectors and 50 rangers. In order to co-ordinate the efforts of all the agencies interested in protecting the region from fire, the manager of the association has been appointed an officer of the Forest Protection Branch of Quebec, as well as of the Fire Inspection Department of the Dominion Railway Commission. To reduce the fire hazard as much as possible a close degree of co-operation with the settlers and with the railways operating in this territory is also proposed. The association now represents over 10,000 square miles of timber lands on the watersheds of the Gatineau, Lievre, Rouge, Coulonge and Nation Rivers.

Protection for the Dominion Forests

Adequate protection is to be given the forest areas of northern Canada by the Dominion Government, and with the object of formulating a system, an inspection is now being made of the timber lying all through the interior right to Dawson City. With this purpose in view W. J. Bold and E. S. Davidson left Prince Albert via overland and water routes for the Yukon, and will travel about 3,000 miles. They will secure extensive data concerning not only the timber but the country in general.

E. H. Finlayson, inspector of fire protection for forests of the Dominion Government, is making summer headquarters at Calgary. He will superintend the making of trails and will improve the system of protection in the federal forest reserve on the eastern slope of the Rockies.

Cost Accounting for Woodworkers

Outline of System Which Enables the Manufacturer to Know the Cost of His Product

Third Article of a Series by Jonas Howe

TO know the point at which profit ends and loss begins, a manufacturer must have his expense accounts classified to the accommodation of the cost system. With such an accommodation, each manufacturing department of a concern should put the management in a position to compare the cost of production with the charges made by each department to the sales or shipping department. Unfavorable conditions sometimes make it necessary for a foreman to lay off some of the direct or productive workmen. Under such circumstances the indirect expenses will not decrease in the same proportion as the direct expenses and subsequently the cost of production will become greater. After an examination of the monthly cost report, it may be seen that the cost of production is greater than it should be in some part. Some of the product is changed or certain expenses are transferred which may be better utilized elsewhere. A good cost system throughout a plant is continually the means of reducing or doing away with items of superfluous expense.

Distribution

Expense made up of labor and material are classified as "direct" or "indirect." The direct expenses are consumed directly in the process of manufacturing and are chargeable to the productive jobs. The indirect expenses are not chargeable directly to the productive jobs and are sub-classified in order that a fair charge may be made by adding location rates to the direct hourly rates of employees to cover the operating expenses.

In most of our larger manufacturing enterprises, the cost system is dependent upon fixed percentages which the cost clerks figure on the productive labor to cover the indirect or non-productive expenses. This method of rating would be altogether impracticable in a woodworking plant. Instead of having a fixed percentage to add to the hourly rate of each productive operator, it would be more effective to have the expense rates for the various machines or benches—"locations."

In this system the operator's pay-roll hourly rate, and the hourly rate of his location are added together. If an employee works on a certain job at a certain machine, and his pay-roll rate is 30 cents per hour and his location rate (machine or bench expense) is 16 cents per hour, by adding these together we have 46 cents per hour, which is equivalent to the manufacturing expense in the process of that specified part.

General Upkeep

The General Upkeep, known as the general overhead or general indirect expense, is that part which cannot be charged to a department or a location. Therefore it is not proper to make allowance for this indirect expense in the location rates. The direct labor rates plus the location rates will give the cost of manufacturing, but the general indirect is not controlled by the factory.

When a large part of the business is done apart from the factory through salesmen or shipping clerks in the selling of lumber, in the rough, or imported merchandise, it can be readily understood that this portion of the business is done under the same general indirect expense as the manufacturing product is. Therefore the general indirect may be formed into a percentage based on the general indirect expenses in comparison with the cost of the whole business. The proportion of the General Overhead should however be made the subject of careful and expert analysis.

New Issue of Disston Handbook

A new issue of the Disston handbook on saws has recently been issued. All who are familiar with previous issues of this book understand its unique nature and appreciate the large amount of important information which it contains. Others who have not as yet made the acquaintance of this little book will be fortunate if they secure a copy, because it contains, in very brief form, an exceptionally valuable assortment of illustrated information relating to the construction and use of saws, together with advice in regard to keeping them in order. Henry Disston & Sons, Inc., Philadelphia, Pa., are the publishers of this handbook.

Forestry Convention Arrangements Progressing

Arrangements are progressing favorably for the 16th convention of the Canadian Forestry Association which will be held at Halifax, N.S., from September 1st to 4th. Although the convention will be national in scope, special attention will be given to Nova Scotia and its forestry problems. Forest administrators of the Dominion Government and the timber owning provinces from Ontario eastward, and probably from British Columbia, will be at the convention, and there will also be many lumbermen, forest engineers and others.

Cost Systems and Efficiency

Several years ago a young man walked into the office of a well-known firm whose line of business was the manufacture of mining machinery says L. M. Wilson in the Woodworker, Indianapolis. He asked for the general manager and in a few minutes was ushered into his office. He told the manager that he was very interested in the line of work done there and would like very much to be shown through the plant. After they had gone through all the departments and were again seated in the office the visitor said: "Would you like to increase your output without any additional cost in the way of machinery?" The manager told him that they were always willing to try an experiment to a certain degree. The young man was hired for sixty days, and in that time he reduced the cost of manufacturing over 15 per cent. That man had trained his eye to be so efficient that he could see the small extravagances of the shop, that count up so fast.

A few years ago I was employed to install a cost system in a mill employing about 250 men. One day the superintendent came to me and said: "Peetz, do you think it would pay to employ a man capable of looking after our daily expenditures and losses?" I told him I felt he would never regret doing so. He then secured the services of a young man who came highly recommended. After studying the methods used, for several days, this man asked me how the per cent stood on the manufacture of window frames. I told him it varied from 12 to 14 per cent. He said, "Have you any idea why this should be so large?" I told him I was very busy getting the cost system in order, but I knew that some days it was easier for the men to turn out more work than on other days. "Yes," he said, "but that is not the real trouble. I believe it comes in the arrangement of the machines. Some of them are on the first floor, some on the second, and a few on the third. When the work is finished on the third floor it all has to be carried back to the second to be nailed up. The same situation prevails in the sash department. I believe the machines will have to be rearranged before there is any material difference noticed in the percentage."

This man went to the superintendent and explained how the trouble might be overcome, but the superintendent was afraid to make the changes (that is, at that time), and suggested that they wait awhile. After several vain attempts to get other changes that he knew would be beneficial, the man left in disgust. In about two weeks the superintendent informed his foremen that the work was costing too much; something would have to be done. He wanted each man to explain the workings of his own deparement. After the men had done so, he gave them some suggestions and changes to be made—of course, they were those suggested by the other man. After the changes had been made the cost was reduced about one-third.

The president of this company informed me that the cost of its veneered doors was running too high; the last lot of 100 had cost about 26c per foot. In looking over the cutting bills I found one item of 20,000-lin. ft. of 1 x 2-in. core stock, tongued and grooved. Upon looking up the time, I found twenty-eight hours for sticking, eight hours ripping and twenty-two hours cutting off, making a total of fifty-eight hours for machine work on the core stock alone. The time required to glue up these strips was sixty-two hours, but they were put up by boys ranging from sixteen to eighteen years of age, whose time was figured at 25c per hour. I asked the superintendent why the time was so far out of reason, and he informed me very curtly that the time was alright. "Well, if the time is right, how it is that you have twenty-eight hours' time for sticking the core stock alone, there being just 20,000-lin. ft. on your stock bill? If the sticker which you run this core stock on won't feed 2,000-lin. ft. per hour in softwood, you had better get a new one." "Yes, but you know we have to run the core stock twice." Here was an up-to-date mill man putting 1 x 2-in. strips through a 6-in. sticker twice. I asked him if the bottom head was out of commission. He saw my idea and said: "Peetz, I have so much to contend with that it never entered my mind to run both top and bottom heads."

This concern asked me if I could recommend a first-class man on veneered doors, but, calling to mind the fate of the previous efficient man, I told them I did not know of any one. In about three weeks they secured one from the east, but he was wiser than his predecessor. After spending some two days' time in looking through the plant, he informed the president that he would accept the position providing he was given absolute control, and so, they made a contract for one year. In a short time this man had reduced the manufacturing cost about 16 per cent, most of which was accomplished by stopping small leaks.

If I were the proprietor of a plant and a man came to me for a position, with the recommendation stating that he had been employed by the writer of his letter for twelve or fourteen years, I would be somewhat skeptical about giving him a berth. Take a man that has been in the employ of one firm for years, and he only knows one way of accomplishing a certain piece of work. On the other hand, take a man who has travelled and worked in numerous plants and under different conditions, some good and some bad, and that man has a larger storehouse to draw from than the man who has worked for one firm the best part of his life, and in most cases under only one foreman.

To illustrate: Several years ago, after returning home from one of my trips, I paid a visit to a friend who was the owner of a plant which made a specialty of all kinds of government work, such as field cases, filing cases for enlistment officers, and, in fact, almost anything made of wood and used by the government. He engaged me as machine room foreman, also to install a cost system, saying: "I feel sure there are several places in the mill that are costing me too much." After I had been there for two or three weeks a man applied for a position. I asked him if he had ever had any experience on a shaper, and was informed that he had, so I gave him the berth. We had no glue-jointer in this plant, all such work being done on the double-spindle shaper, using the regular Shimer heads. That man commenced work at noon, and was actually set up, ready for work, at twenty minutes past 4 o'clock—three hours and twenty minutes doing a fifteen-minute job. He told me he had worked for one firm eighteen years, six years on a shaper. I wondered what his work cost that firm, and what success a cost clerk would have with a dozen such men in a wood-working plant.

One of the greatest obstacles I have had to contend with in getting a correct cost is getting the men to send in the correct time, and there are various causes for this. Some men seem to think that it is a piece of foolishness, others become so interested in their work that they neglect turning in their time when they have completed the work, or fail to put it down on their time card, and some spend more time on the time card than on their work. When a foreman meets with these irregularities he must use sound judgment in trying to overcome them.

As an illustration, some time ago we received an order for four yellow pine shelves, 4-ft. by 18 by ⅞-in. We used eight pieces 10-in. wide, and, of course, only had one glue joint, but the time sent in by the different workmen was away out of reason. The stock-cutter had thirty minutes, the jointer man fifty minutes, and the gluing-up man one hour and fifteen minutes. I tried to trace the matter up, but no one knew anything about it. The stock-cutter and gluing-up man were new employees, and I came to the conclusion that they had failed to write down their time, and the jointer man informed me that it was impossible for him to remember two days back.

Another trouble in obtaining a correct cost is the stock we have to contend with. The loss will be greater one time than another, but, of course, is not so great in plants where they manufacture a small line of goods. In planing mill work I figure 25 per cent on yellow pine, 33 1-3 per cent on poplar and cypress, 40 on plain oak and 50 on quartered oak. Of course, it won't run so high on some work, but take it year in and year out, and you will find these losses very nearly correct; and I know of several firms which figure more. As an example, suppose you had a stock bill that required 400-ft. face of 4/4 yellow pine. Have your yard man send you in just the exact amount required on the bill, and you will find, as I have, that 25 per cent is a reasonable loss to add to actual amount required.

Losses can sometimes be reduced by ripping stock first and then cutting it off, and sometimes by cutting it off first, whichever the case may be. As to the loss of 50 per cent on quartered oak (I have reference to planing mill work), suppose that you have a bill with thirty sets of 4½-in. casings, free from all defects and sap clear, what width of stock would you have your yard man send in? Some of you will say 6-in., some 10-in. This is a question which I will answer soon, also give some true figures for adding such a large loss on quartered oak.

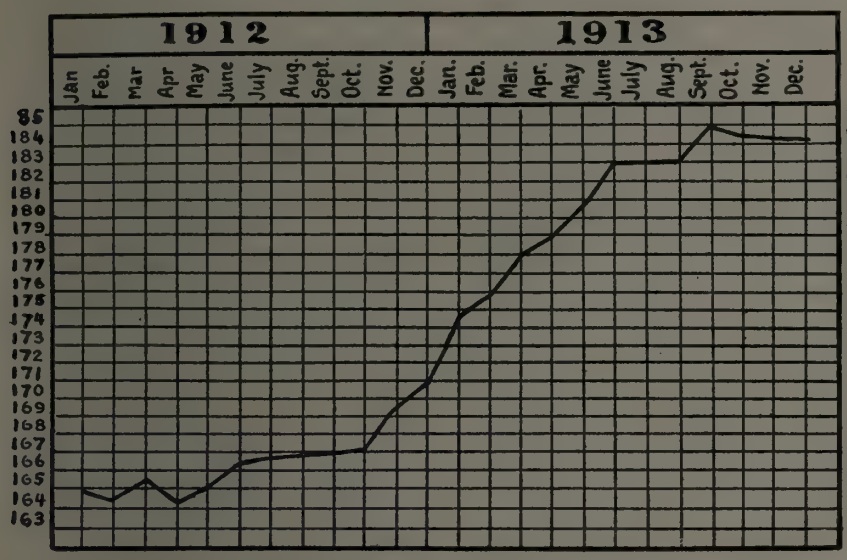
Just a few words to superintendents and foremen who are opposed to the cost system: A few years ago the writer received word to come to a city located in central Ohio, and install a cost system. During my ride to this city a new idea came into my mind. It had always been my custom to present my card at the office first, but I decided to ask permission to go through the plant before disclosing my identity. Upon arriving at the office they readily gave me permission to visit the different departments, and, after making my tour of inspection I presented my card at the office. It was my ill luck for my card to fall into the hands of the superintendent, and if the general manager had not been present at the time I am satisfied that there would have been no cost system in that plant, and I would now have one less friend. For two weeks that superintendent used all the means that lay in his power to give me trouble, but about the middle of the third week he came to me and said: "Peetz, I have been wrong in this matter and wish to apologize for my conduct. This cost system has done as much good as installing some new machines that I wanted." There are a great many superintendents who think that a cost system will be to their detriment, when it is as much benefit to them as to the firm.

The Chaleur Bay Pulp & Paper Company, Limited, Sherbrooke, P.Q., has been incorporated with capital stock of $100,000. The incorporator is H. R. Fraser, Sherbrooke, P.Q.

Lumber Prices in Diagram Form

In the June issue of the Labour Gazette, issued by the Department of Labour, Ottawa, the following review of the lumber trade during 1913 is published: "The financial depression of 1913, which was the most pronounced factor in the lumber market, was largely offset by reduction of stocks at the end of 1912. Operations in the woods and mills during 1913 were curtailed, so that stocks did not accumulate and flood the market as a consequence of the lessened demand. Prices held, except in a few grades and localities. At the end of the year the financial situation showed signs of improvement, though it was found necessary to restrict the granting of credit to retailers. On the whole, the dull period came at an opportune time for lumbermen, and no disastrous results to the industry were experienced, the activity of the two years preceding having left the trade in good shape.

"Uncertainty as to tariff changes in the United States during the first nine months of the year caused a considerable falling off in exports, as dealers there bought supplies only in a hand-to-mouth way. The high freight rates to England and the scarcity of ships were also deterrent influences on trade. By October, however, the settlement of the United States tariff question led to a considerable increase in


1912
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business. Shipments to Great Britain also increased in the autumn, with more ships and lower freight rates."

The following diagram illustrates the relative prices of lumber during 1912 and 1913. The commodities included are pine, all grades, good sidings, shipping culls, box boards, No. 1 cuts; N. B. spruce and shingles; lath, hemlock, oak, birch, maple, (soft); B. C. fir and shingles. The average of prices during 1890-1899 is considered as 100, and the diagram shows a comparison with this average.

Canadian Railway Ties for India

As a result of the efforts of the British Columbia Government, an order has been received from the Bengal Northwestern Railway of India by the Dominion Creosoting Company, Limited, of South Vancouver, for 160,000 railway ties. The government has been conducting a campaign for extending the trade in lumber and was instrumental in interesting the Indian railway in the timber of British Columbia. Ties used in India have come mostly from Australia, the hardwoods of that country being immune from the ravages of the white ant, which prey upon the native woods of India. Australian ties are becoming dearer in price, which is one reason why attention is being given Pacific Coast fir. The Dominion Creosoting Company will specially treat the timber on order, and before shipment it will be inspected by one of the members of the forest branch of the provincial government. Local lumbermen are sanguine that once the creosoted fir has been tried out in India it will come into favor as suitable material for railway ties in that country.

The Short-Log Saw Mill

The short-log saw mill is an equipment that is growing in usefulness in about the same ratio that we clean up our forestry resources and go back after the leavings. This, however, is not the only source of development in the short-log mill. It is also being developed in connection with the wider tendency to manufacture furniture and other wood work, other special small dimensions, right in the woods. Also, it has been to quite an extent developed along with the making of handle and spoke blanks.

There are different types of the short-log saw mill, and probably some that are really not entitled to be so called, though it is hard to place the line of distinction between the regulation length and a short-log mill. Some people think that a mill that will not cut logs more than 16-ft. long is a short-log mill; others conceive that a short-log mill is one which cuts stock from 2-ft. up to 6 or 8-ft. These two probably characterize the types of short-log mills, and, in a way, give a clew to their different uses.

The true short-log mill has a multitude of uses in making small dimensions of various kinds. Sometimes it is used as a sort of side industry to other work, such as with a veneer mill for cutting up the cores. Again, it may be used for working bolts and cutting heading and short lengths of hardwood of various kinds. Down east they have a type of short-log mill used to cut clapboards or a kind of bevelled siding.

While considerable dimension stock is made on rip and cross-cut saws in the saw mill, there is lots that is made on short-log mills, from timber that might otherwise go to waste; and there is room to save a lot more good timber in the same way. That is, there is room for many a hardwood saw mill plant to install, as a side issue, a short-log mill, then bring in all the short lengths of timber and even take some that shows defects, and cut it up after it is on the yard into any of the variety of products that can be made of short lengths.

Then there is a development in the other type of short-log mills—those handling logs up to 12 or 16-ft. and down to as short as probably 4-ft. In many sections of the country the cream of the timber has been cut out; still there is a lot of what was formerly termed scrub timber, that may be worked to advantage. For this work often the best equipment is a light short-log mill that can be moved about from place to place to save hauling—a sort of portable rig. In a way it should be a successor to the old plantation mill, and right here there is indecision and trouble now and then. There is a natural inclination for a man to want a short-log mill generally, yet want it so that now and then he can cut a few long logs, say up to 20 or 24-ft. Occasionally he can get something of that kind, and he wants to be able to supply the demand for such stock. It is pretty hard to resist the temptation to hook on an extra length of carriage and add extra track, but really the short-log mill should be regarded strictly as such, and should limit its production.

An ideal short-log mill of the second class, or rather of the latter type portrayed here, might be limited to 12-ft. and under in the length of logs. It is better to equip them for cutting the extremes of shortness rather than seek for more length, because it is here we will get economy and utility in cleaning out the scrub stock from our forest resources. So, if you are interested in short-log mills, don't try and make a compromise or mixed mill of it. Study your limitations, and while it may cut you out of some business, you will probably find that you will fare better in the end.—J. C. T. in The Woodworker, Indianapolis.

How to Estimate Net Profit

Here are a few pointers from the National Association of Credit Men on estimating net profit:

1. Charge interest on the net amount of your total investment at the beginning of your business year, exclusive of real estate.
2. Charge rental on all real estate or buildings owned by you and used in your business at a rate equal to that which you would receive if renting or leasing it to others.
3. Charge in addition to what you pay for hired help an amount equal to what your services would be worth to others; also treat in like manner the services of any member of your family employed in the business not on the regular pay roll.
4. Charge depreciation on all goods carried over on which you may have to make a less price because of change in style, damage, or any other cause.
5. Charge depreciation on buildings, tools, fixtures, or anything else suffering from age or wear and tear.
6. Charge amounts donated or subscriptions paid.
7. Charge all fixed expenses, such as taxes, insurance, water, lights, fuel, etc.
8. Charge all incidental expenses, such as drayage, postage, office supplies, livery or expenses of horses and wagons, telegrams and telephones, advertising, canvassing, etc.
9. Charge losses of every character, including goods stolen or sent out and not charged, allowance made customers, bad debts, etc.
10. Charge collection expense.
11. Charge any other expense not enumerated above.
12. When you have ascertained what the sum of all the foregoing items amounts to, prove it by your books, and you will have your total expense for the year; then divide this figure by the total of your sales, and it will show you the per cent. which it has cost you to do business.
13. Take this per cent. and deduct it from the price of any article you have sold, then subtract from the remainder what it cost you (invoice price and freight), and the result will show your net profit or loss on the article.
14. Go over the selling prices of the various articles you handle and see where you stand as to profits, then get busy in putting your selling figures on a profitable basis and talk it over with your competitor as well.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Stumpage Wanted

Wanted to buy white pine stumpage in Algoma District. Address Box 53, Canada Lumberman, Toronto, Ont. 14-14

Wanted

One or two blocks of Spruce, also Pine, must be well manufactured. Apply Box 31, Canada Lumberman, Toronto. 11-t.f.

Wanted

One or more cargoes of 1 and 2 in. Spruce for delivery at a Lake Erie Port,

E. C. BRADLEY LUMBER CO.,
14-17 Cincinnati, Ohio, U.S.A.

Wanted To Buy

Two million No. 1, 2 and 3 Pine Lath and one million Hemlock Lath.

M. BRENNEN & SONS,
12-15 Hamilton, Ont.

Wanted

500,000 feet Hard Maple, 1½-in. to 4-in. Also 1-in. Basswood. Shipment Summer and Fall. Terms Cash. Box 32, Canada Lumberman, Toronto. 11-12

Wanted

1,000,000 ft. Spruce, 1-in., 1¼-in. and 2-in. If not already cut will give sawing instructions. Apply Box 30, Canada Lumberman, Toronto. 11-t.f.

Wanted

Soft Elm, 4/4 log run.
Birch, 5/4 log run.
Quote lowest prices F.O.B. mill for dry or new cut.

E. M. NICHOLSON,
Board of Trade Building,
9-t.f. Montreal, Que.

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

For Sale-Lumber

For Sale

1,600 good Cedar Poles, 25 to 55 ft. long, ready for immediate shipment.

LYNCH & RYAN LUMBER CO.,
14 Marmora, Ont.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

We Own and Offer

subject to prior sale, the following Rock Maple lumber:

200,000 ft. 1sts and 2nds 4/4 in., $33 per M.
30,000 ft. No. 1 Com. 4/4 in., $23 per M.
30,000 ft. 1sts and 2nds 6/4 in., $35 per M.
10,000 ft. No. 1 Com., 6/4 in., $25 per M.
100,000 ft. 1sts and 2nds 8/4 in., $36 per M.
20,000 ft. No. 1 Com. 8/4 in., $26 per M.

These prices are all f.o.b. shipping point, on an easy rate of freight to New York and Boston.

c Apply Box 47, Canada Lumberman, Toronto, Ont.

Lumber For Sale at Seguin Falls

Dry and ready for immediate shipment, will ship mill run culls out. Birch at $23 per M. ft., Hemlock $16.75, Pine $25 per M. ft. F.O.B. cars.

	Feet
1 and 2 in. Birch, 12-16 ft. lengths...	20,000
1,715 pcs. 2 x 4, 10-18 ft. Hemlock..	13,470
1,416 pcs. 2 x 6, 10-18 ft. Hemlock..	17,476
4,295 pcs. 2 x 8, 10-18 ft. Hemlock..	72,907
1,433 pcs. 2 x 10, 10-18 ft. Hemlock.	51,911
1,849 pcs. 2 x 12, 10-18 ft. Hemlock.	46,974
Hemlock, 1-in., 10-18 ft.	54,300
1 in. x 2 in. Pine	8,300
	285,338

Apply to MONTEITH BROTHERS,
14-17 Rosseau, Ont.

For Sale-Machinery

WOODWORKING MACHINERY FOR Sale:—1 42-in. Egan power feed band rip saw; 1 40-in. MacGregor-Gourlay pedestal bandsav. 4 Ideal variety saw tables; 2 6½-ft. iron frame, swing saws; 1 No. 51 Crescent universal woodworker; 1 10-in. Hespeler four-side moulder; 3 16-in. revolving bed, double surface planers; 2 16-in. Ideal wood lates. H. W. Petrie, Limited, Toronto. 14

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED—Position as filer, band or circular. Can furnish best of references. Open after July 1st. Address Box 144, South River, Ont. 13-14

WANTED—Position in Saw or Planing Mill. Office and mill experience. Could take charge of Sales, or act as Mill Foreman or Yard Foreman. Excellent references. Box 44, Canada Lumberman, Toronto 13-16

WANTED—Position as sawyer, circular or band. Can furnish good references; open middle of July. Box 77 South River, Ont. 14-15

Position wanted as practical sawmill foreman. Twenty years' experience. Can furnish the best of references. Address Box 51, Canada Lumberman, Toronto. 14-t.f.

EXPERIENCED SUPERINTENDENT wants position to take charge of lumbering operations, bush, mill, etc. Desires a change. Can get results and furnish the highest credentials. Box 46, Canada Lumberman, Toronto. 13-17

A thoroughly practical lumberman wishes to connect with reliable firm either as salesman or buyer. Ten years as partner in well-known Ontario lumber firm—six years' experience selling on road. Familiar with every angle of lumber business. Would consider salary or commission proposition. Best of references. Full particulars from Box 37, Canada Lumberman, Toronto. 12-15

Situation as FORESTRY ADMINISTRATOR or in the LUMBER TRADE, wanted by two Swedish foresters, both of whom have matriculated, and also passed the higher course examination of the Royal Forestry Institute in Stockholm. Afterwards having positions in the Forestry Administration Department of the Swedish Government; in private Sawmills; and in Forest administration. Both speak English, German and French. One is 40 years old and has been for 5 years manager in a Swedish Sawmill, during which period he has personally attended to the planing, selling and dispatch of timber. The other is 33 years old ,and has during the past 3 years been factor on a Swedish estate, and personally handled every matter attendant upon the administration of a private forest. Correspondence gladly received, together or separately, to "Lumberman 40" or "Lumberman 33" c/o S. Gumaelii Annoncebureau, Stockholm, Sweden. 13-14

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—A young man with experience as salesman for sash and door factory. Apply to Box 38, Canada Lumberman, Toronto. 12-15

WANTED—A first class foreman for retail lumber yard, one accustomed to handling men. Good wages. Apply York Lumber Co., Ltd., 1000 Gerrard Street East, Toronto 14

WANTED—Salesman calling on the lumber trade and contractors in the Eastern Provinces, to handle Dr. J. M. Stewart's Veterinary Remedies as side line.

Palmer Medical Company, Ltd.,
10-t.f. Windsor, Ont.

Business Chances

For Sale

Timber Limits, principally Hemlock, also Pine, Spruce and Hardwood. Also Saw-mill, logging and driving outfit. About quarter million burnt timber to be disposed of at a reasonable price. For particulars address Box 52, Canada Lumberman, Toronto. 14-17

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Complete sawmill outfit. Machinery practically new. Capacity 20 M. Two boilers 60 and 40 h.p., with cold blast grates, endless log chain, 8-in. steam feed; 3 block carriage with boss dogs; friction canter and sweep; 3 saw edger; 2 saw trimmers and a full complement of saws and belting. Also Long Mfg. Co. lath mill in first class condition will be sold with sawmill or separately. Mill near White Hall, Ont. Apply to Box 41, Jordan Harbor, Ont. 11-14

For Sale

The best timber berth in Alberta, containing approximately one hundred million feet, four-fifths of which is splendid spruce. A railroad will pass within one mile of the limit this summer. The situation makes it an exceedingly easy limit to operate. Price $2.00 per M., easy terms. On account of its close proximity to the prairie markets and easy logging, this is cheaper than B. C. timber for nothing. For further information apply to Box 25, Canada Lumberman, Toronto. 11-14

For Sale
Timber Limits and Saw Mill

Limits No. 59 River Gatineau, 3 square miles, and No. 483 Grand Lake Gatineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Cedar, Pulpwood, etc., also New Waterous 8-ft. Improved Double Cut Band Mill, fully equipped and up to date 200 H.P. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggons, Trucks, etc., Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q., about 50 miles from Ottawa. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

GUARANTY TRUST COMPANY, LTD.,
802 E. T. Bank Building,
263 St. James Street,
13-16 Montreal, Que.

Miscellaneous

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Record Car Shortage Predicted

What is regarded by railroad experts as the forerunner of a sharp falling off in the number of idle cars is indicated in the semi-monthly report of the committee on relations between railroads of the American Railway Association in its statement of car surpluses and shortages as of July 1, 1914, issued July 7. The statement shows that on July 1

the surpluses of cars on 189 railroads throughout the country totalled 220,875. On the date of the previous report, June 15, there was a surplus of 232,994 cars and on June 1 of 242,572 cars, a falling off in the surplus of 22,000 cars in 30 days. It may be safely anticipated that the semi-monthly statements issued for several months to come will show a steadily declining surplus.

It is the opinion of competent railroad authorities that the car shortage this fall will be the worst ever known, despite the fact that there was a surplus on July 1 of 220,875 cars. The last report received as to the condition of cars showed that there were over 200,000 in shops for repairs.

Taking the winter wheat crop on the basis of 655,000,000 bushels, as shown by the agricultural department at Washington, it will require 1,092,000 cars to carry it to market. The spring wheat crop will need 458,000 more cars and the oats crop will require several hundred thousand more cars. The problem of how to do this on the basis of present equipment facilities is one of grave importance to railroad officials everywhere.

New Market for Pacific Coast Lumber

Especial attention should be given to the new lumber market in Spain that is bound to be created immediately upon the opening of the Panama Canal to commercial traffic, says a United States Consular report. The opportunity will be further increased upon the establishment of a regular freight service from the Pacific Coast of the United States to Spanish and Portuguese ports by way of the Isthmus.

The import lumber trade as it now stands in Spain is in a flourishing condition. Oregon and California woods, particularly Oregon pine, are well liked here for their quality and especially for their large size. Several consignments have come to Spain, in reality trans-shipment from France, England and Germany, which puts the local quotations for this lumber at a high figure and renders it practically impossible to compete always with the pitch pine (long-leaf yellow pine) from the Atlantic and Gulf of Mexico ports. Pitch pine is extensively used in Spain and would, it is stated, be still further employed had there not been disputes between sellers and buyers as to quality of lots ordered. This unfortunately has led to a gradual rearrangement of conditions, so that now most importers buy through the large English wood brokers who guarantee fulfillment of contracts and allow a good portion of the payment to stand over until the goods have been received and approved. Moreover they agree to the insertion of a simple arbitration clause in the lumber contracts. At the present time only entire cargoes could profitably be brought direct from United States ports on the Pacific to Spain. This would be too considerable an undertaking regularly for any single importer with the existing high freights and would render a successful competition with pitch pine impossible. When smaller lots can be delivered direct, as is hoped will be possible by the opening of the interoceanic waterway and consequent reduced freights, there will be a certain increasing market for the woods of the Pacific coast.

With regard to American hardwoods and fancy woods, the difficulties of purchase have been thus far so numerous as to induce leading Spanish firms to have their own agencies in the United States, buying at first hand on favorable terms from forest and mill owners and personally supervising the shipment of goods. These importers keep fairly large stocks here, sell at retail, give long credits and at prices which practically give them a preponderating influence in Spanish trade in this line.

Oak staves are handled in the same way as hardwoods and there are two large local firms that have their houses in America and well-nigh control this trade in Spain. The more important firms, whether dealing in lumber, fancy woods or staves are credited with financial responsibility well above anything they might buy. They generally ask, however, for the privilege of paying cash less discount or four months' acceptance, an option they use according to the rate of exchange, which is subject to appreciable fluctuation.

British Columbia Red Cedar

British Columbia is regarded as the last stand of red cedar in North America, says the U. S. Consul-General at Vancouver, in a recent report, and it is predicted by millmen that within the next few years hundreds of new shingle mills will be established in this Province to participate in the profits to be derived from the manufacture of cedar shingles. It is predicted by those who have investigated the subject that British Columbia will have almost the exclusive market of the continent for its red cedar lumber and shingles, and with the opening of the Panama Canal the industry will probably receive great stimulus. Cedar logs and shingle bolts are not exported, except from Crown lands, and this prohibition will result in more mills coming to the Province, as the product must be manufactured here. Washington State has 435 shingle mills with a daily output of 15,000,000 shingles. The capital invested in the Washington mills is estimated at $20,000,000, and they employ 14,000 men with a daily wage approximating $14,000,000 a year. Whatcom County, Wash., has 113 mills, as compared with 60 in British Columbia. More than half of the shingles produced in this Province are exported to the United States, and as there still remains a plentiful supply of cedar timber in British Columbia the industry promises to increase in importance and to become ultimately one of the most profitable in the Province.

Lumber Statistics

The monthly report of the National Lumber Manufacturers' Association showing the cut and shipments of lumber during the month of May, has recently been issued by the secretary of that organization. Taken as a whole, the showing is not very favorable as compared with that of the same month of last year. Both hard and soft woods were shipped in less quantity than the previous year. Out of twenty-seven states from which reports were received, only eight showed a gain in shipments of either hard or soft woods. The net decrease in hardwood shipments for the month was about eight million feet, and in soft woods, about sixty-six million.

The summary shows a decrease in the amount manufactured during the month, as compared with May of last year, of about one hundred million feet. The total decrease in shipments was seventy-four million. The various mills included in the report manufactured 125,500,000 feet more than they shipped during May of last year, and 100,400,000 feet more than they shipped in May of the current year. These latter figures are not unusual, however, for May is an active manufacturing month, and stock always accumulates then.

Circular Saws of Paper

Microscopists well understand the art of cutting thin sections of wood and other materials with rapidly revolving paper discs, acting as circular saws. The centrifugal force developed by the rapid motion holds the paper rigid and it cuts without being equipped with teeth as saws usually are. The use of paper saws are being put to more ambitious purposes in England, according to a trade paper of that country, which recently published an article, saying that a factory is said to exist in England which is manufacturing circular saws from paper. These paper saws are used for the manufacture of fine furniture, veneer, and other thin plates of wood which must be treated especially carefully. Some time ago circular saws made from drawing paper were shown in an England exposition. The saws were driven by an electric motor, and produced fine boards, which could not have been made better even by the finest steel saw. The veneers made in this way are so smooth that the cabinet-makers can use them without further planing.

In a "confidential circular" issued by the United States Department of Commerce under date of July 2, a considerable amount of advice is given catalog houses for their guidance in gaining the trade of consumers in Canada, and the Mississippi Valley Lumberman says that this is evidence that the Postoffice Department of the United States government is not alone in its effort to wipe out the business of the small merchant.

BAUGHMAN'S
BUYER AND SELLER
Special Price, $1.00
Canada Lumberman - Toronto

WASTE ELIMINATION
IN LOGGING OPERATIONS
My reports show where the waste is, and how it may be eliminated.
D. E. LAUDERBURN, Forest Engineer
1 Madison Ave., NEW YORK, N.Y.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

Timber Cruises
Forest Surveys
Water Powers, Storage, Logging and Lumbering Contracts, Reports for Financial Houses and Lumber Concerns.
R. O. SWEEZEY
164 St. James Street, MONTREAL

Cleans a building of Rats and Mice in short time, keeps it cleaned, for it is always ready for use. Made of galvanized iron, can't get out of order, lasts for years. Large number can be caught daily. Go to Catcher mornings, remove device inside, which only takes few seconds, take out dead rats and mice, replace device, it is ready for another catch. Small piece cheese is used, doing away with poisons. Catcher is 18 inches high, 10 inches diameter. When rats pass device they die, no marks left on them. Catcher is always clean. One of these Catchers set in a livery stable in Scranton, Pa., caught over 100 rats in a month. One sent prepaid to any place in Canada or United States upon receipt of $3. Catcher, 8 in. high, for mice only, prepaid $1. On account of shipping charges being prepaid, remittance is requested with order.
H. D. SWARTS,
Inventor and Manufacturer, Scranton, Pa.

Review of Current Trade Conditions

Ontario

Ontario wholesalers are reporting some improvement both in city and in country trade. One prominent firm in Toronto state that the month of June was quite a fair one, so far as volume of business was concerned. This firm have also been doing a good business during the present month. Similar reports are made, rather cautiously, by several other firms, all indicating that, possibly, a change in the business situation has commenced. Others, however, who report similar slight improvements do not place much importance upon them, considering that they are simply indications of the spotty nature of the trade, which is sometimes up and sometimes down.

In Toronto, the trade during the early part of the present season was rather dull, but it is now reported that many of the retailers are running short of stocks and are coming into the market with fair orders, so that business is picking up slightly already, and by the first of August may show a fairly average volume. In the eastern part of Toronto an exceptionally active trade is in progress, dealers claiming that they are having much difficulty in keeping up with their orders.

Lath are very scarce. Many customers throughout the province who have allowed their stocks to run down are wiring for delivery. Shingles are commencing to move again, as the yards which were over-stocked earlier in the season have worked off their supplies pretty well. Crop reports from many parts of Ontario give promise of excellent results, which are expected to have a strengthening effect upon the market early in the fall.

The bursting of the dam at Lakes Temiskaming and Kippewa recently caused an extensive rise in the Ottawa River, which was increased by heavy rains, with the result that driving operations on the river were greatly benefitted. Throughout the Ottawa district, trade continues dull, with no noticeable indication of improvement. It is not thought that active trade will revive until fall at the earliest. The export trade is very quiet.

Eastern Canada

A slight improvement in the lumber trade is reported from Montreal, although the volume is still less than it was a year ago. Retailers continue purchasing only for immediate requirements. Prices are likely to continue steady, because of the shorter cut of lumber expected this year. Building returns continue to show a decrease. The export trade is very quiet.

A prominent Albany dealer in Canadian spruce reports that buyers are showing some indication of going into the market more extensively and relieving the pressure from wholesalers which has continued for some time past. Retailers in the Metropolitan district are carrying short stocks of spruce and the stock at Albany is, today, smaller than it has been for many years. It would not take a great increase in the demand to steady the market. Those who are short of stock will now have to depend upon this year's cut, which, it is expected will be short of the average annual production.

Recent reports from St. John, N.B., state that general business conditions are showing signs of improvement. Farmers are encouraged by the good weather and fine crop conditions. House builders are reported to be busy with the erection of a large number of new dwellings and the improvement of old ones. Harbor development enterprises are giving employment to a large number of men. Manufacturing plants are feeling the trade depression a little more keenly than some other lines, but are hopeful of an early recovery.

United States

In the Metropolitan district of New York, trade, while not by any means normal in volume, is sufficient to keep most of the yards going. Competition however, is very keen. Building figures in greater New York for the month of May show a total gain of 21 per cent., which is a little greater than the gain for the previous month. The wholesale market shows a number of slight changes in value. Practically the whole list has been affected, but no large declines are reported. Among the hardwoods, ash, birch, beech and maple are firm, but chestnut, gum, plain oak and poplar are off, on the average about one dollar. Spruce prices in New York are unchanged as a whole, although a few items in short spruce are a little lower. The yellow pine market also shows a reduction of about 50 per cent. At Albany the lumber trade is quite erratic, sometimes showing exceptional activity, and later, exceptional dullness. Business of all kinds appears to be at low-water level. At Buffalo the trade in white pine is unusually slow. Small lots of shingles and lath are in fair demand. Hemlock is quiet, buyers only looking for what they require immediately. The larger buyers in Northern pine are taking only small stocks at present. Eastern spruce is quiet, with prices about as low as dealers can make them. The hardwood trade shows no change of any importance.

At North Tonawanda an improved demand is reported for hemlock. There has been an excellent demand for lath during the past fortnight and stocks at local yards have been wiped out. Northern pine shows no important change. The demand is off for the better grades, especially shop, and prices are uncertain.

Lumber prices in the south, the far west, and the inland empire have advanced during the past fortnight by from 50c to $1 a thouand, and it is generally conceded that the advance is thoroughly justified. This improvement seems to be the result of the better feeling coming out of the excellent prospects for a large and successful crop.

Recent sales of eastern spruce at Boston have been at the lowest base price accepted by wholesalers this year, viz., $23.50 and even $23. In spite of this, there are good indications of improvement, as most retail stocks are low, and orders now coming in are frequently for immediate delivery. Some manufacturers are still getting $24 and a few say they have orders booked ahead at $24.50. There is a fair demand for random, especially 2 x 3 and 2 x 4, which are bringing $21 and $22 to $22.50 respectively. A fair volume of trade is reported in lath at Boston. Sales of 1⅝-in. at $4.15 are not so frequent; $4, $4.05 and $4.10 being more often quoted. Shingles are about steady. White cedar extras have sold lately at $3.45. Some specially high grade brands have been bringing $3.65. The range for clears is from $2.80 to $3.10. Red cedar shingles are rather quiet.

Great Britain

A fair amount of trade is still in progress at London, in spite of a very gloomy outlook in connection with the building trade, involving a possibly general lockout of workmen. Importers have been disposing of their stocks at a fairly satisfactory rate, although very few of them claim to be making any satisfactory profit. At Foy, Morgan & Company's recent auction sale second Quebec spruce 3 x 9 brought £12 and 3 x 7 £9 15s. per St. Petersburg standard. Fourth Quebec spruce 3 x 9 was sold at £10 7s. 6d. and fifth brought £9 5s.

Trade at Liverpool has been very quiet with no noticeable new features to report, so far as soft woods are concerned. The demand is irregular and both agents and importers are finding it difficult to do any important business. It is a long time since there was so noticeable a disposition on the part of consumers to adopt a waiting policy. Everyone reports that orders now being placed are exceedingly small and the turnover is much below normal. Spot prices for spruce are unchanged, but steady. The demand shows no sign of increasing. Only a limited business is going on in the c.i.f. trade.

The trade at Manchester shows no developments of interest, but the volume of trade is fairly well maintained. Small orders are plentiful and total to a considerable amount. Spruce is maintaining its price level in spite of rather heavy arrivals.

The Timber Trades Journal in a recent issue, referring to the spruce and pine markets says:—"In spruce deals from New Brunswick and Nova Scotia there is little doing at present in this district, as shippers are, so far as can be ascertained, playing a waiting game, in the hope that they may do better later on in the season; but they will have to wait until the position shows itself more prominently than it does at present. Much, of course, depends upon the freight market, and should it become necessary for the owners to withdraw their tonnage on account of the labour troubles, there might be a big jump in prices for tonnage for the autumn shipments. This contingency, should it arise, would affect the Quebec pine deal shipments in the same degree. But at the same time it would help off the stocks here, much to the benefit of the importers who have their remainders left over and their present importations left unsold."

A New Herbert Morris Crane Bulletin

Bulletin B7 which has just been issued by the Herbert Morris Crane & Hoist Company, Limited, is devoted exclusively to the Morris Type S1 Hand Operated Overhead Travelling Crane, which is a very light crane, designed in various sizes up to 1½ tons. By making all the main parts of rolled-steel section the weight of the crane itself has been kept very low, thus avoiding that disproportion between the dead weight and the live or useful weight which is so often a discouraging feature of all overhead travelling cranes. An interesting feature of the bulletin, is that it describes a large number of alternative constructions of the lifting gear, which are available for use under the varying conditions found in the many different factories in which this type of crane can be used to advantage. Copies of the bulletin will be furnished on request, directed to the company at their works, Peter Street, Toronto, or their branch office, Coristine Building, Montreal.

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

Cleveland-Sarnia Sawmills Co., Limited

Sarnia, Ontario

View of Mills in Sarnia.

BEAR IN MIND

That we saw the year round and always have large stocks of

Norway and White Pine Lumber

Large timbers cut to order, any length up to 60 feet, from Pine and B.C. Fir.

Headquarters for Norway Silo Stock.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Ottawa Drives Helped by Rising Water

Ottawa, July 10 (Special to the Canada Lumberman): The heavy rains of the first few days in July, following the bursting of the conservation dam at Lakes Temiskaming and Kippewa caused the water to rise about two feet in the Ottawa river, at the foot of the Rideau canal locks, where measurements are taken. The rainfall for the past month measured 2.12 inches compared with .33 in May and now there is sufficient water in the streams in the Gatineau district to float the logs, consequently helping business at the saw mills.

Business throughout this section of the country continues to be rather dull and the prospect of improvement before next fall is not hopeful. A prominent lumberman speaking to the representative of the Canada Lumberman recently, and discussing the business situation and the money market said: "Money is getting a little easier, but not easy enough to warrant the speculative builder in going into operations on an extensive scale. Lumbermen do not look for conditions to improve very much before the fall, and then only if the harvest is bountiful in both Canada and the United States, which will ease up the money market. There is a noticeable feeling among all classes of business men that trade will revive before very long."

No alterations in price have taken place recently and there are not likely to be for sometime. There is comparatively little moving in the export end which indicates that trade is not very active in Great Britain the largest importer of lumber from this country.

Owing to a big section of the platform in front of the sawmill at J. R. Booth's plant collapsing about 10 days ago the sawmill was put out of business and about 200 men thrown out of employment. The platform, in falling, destroyed two or three small frame buildings near the mill and also did considerable damage to the mill itself. Luckily, nobody was nearby at the time of the accident. It will be three weeks before the mill will be in operation.

Among the candidates elected to the Ontario legislature in the election on June 29th were two lumbermen from this district, namely, Mr. G. C. Hurdman, president of the Hurdman Lumber Company, who won the contest in West Ottawa, and Mr. E. A. Dunlop, president of the Pembroke Lumber Company, who was returned for North Renfrew.

Mr. R. R. Williams, of the Williams Lumber Company, Ottawa, left yesterday on a business trip through Western Ontario.

Montreal Trade Showing a Little Life

Montreal, July 10th (Special to the Canada Lumberman): On the whole, business has slightly improved of late. There are still complaints that orders are below those of this time last season, but there is less gloomy talk than there was. The retailers are purchasing, as a rule, from hand-to-mouth, and are not disposed to buy in large quantities. The prospect is that prices will be maintained in view of the shorter cut which will result from the poor drives. There is little to report in hardwoods.

The sash and door section is by no means satisfactory, although one of the largest firms in the city report that there has been a distinct revival, and that they are fully occupied.

The building returns are not encouraging and are characterised by the same features as previous permits this year—a falling off in large structures and an increase in houses, apartments, and flats. For the month of June the permits totalled $2,278,424, a decline of $334,828, as compared with June, 1913. The figures for the six months show a decrease of $1,420,375.

Exports are still very slow, Watson & Todd being the only shippers who are sending any amount of pine to the other side. A limited quantity of birch is being exported, but trade in the export branch generally has fallen off in a very marked degree.

The business of the late J. H. Redfern, Charlevoix Street, Montreal, has been purchased by the Redfern Lumber Company from the Montreal Trust Copmany, in whose hands the estate was placed for disposal. Under the will of Mr. Redfern the business was to be disposed of within eighteen months. Tenders were invited by the Trust Company, but none was accepted owing to the low prices offered. Since then, however, the estate has been sold to the Redfern Lumber Company, in which local capital is interested. Mr. F. T. Marie is the manager.

The Eagle Lumber Company, Limited, Montreal, are constructing a planing mill at St. Jerome, P.Q. The site is 180 by 123 feet.

The Upper Fraser Lumber Company, Limited, has been formed with a capital of $3,250,000, to take over the assets and liabilities of the Upper Fraser River Lumber Company, Limited, with its head office at the Board of Trade, Montreal. The incorporators include the Hon. W. C. Edwards, Messrs. Alex. MacLaurin, Montreal; C. J. Booth; G. W. Farrell, Montreal; and J. M. Mackie, Montreal. The company is erecting a sawmill at Dome Creek, B.C., which will be driven by electricity and steam.

New York Trade Marking Time

Chase, Talbot & Company, New York, report under date of July 1st, as follows: Our lumber market is stagnant. Such small consumption as there may be is adequately supplied from local yard stocks. Buyers are reluctant to increase their indebtedness through new purchases, while they still find it an effort to provide for their current obligations. Prices are unsatisfactory, and, in the main, quotations of last month are unchanged, excepting in such instances as might be noted of sales at fractional reductions.

Since the beginning of the year the yellow pine operators have predicted an advancing scale of prices, while the fact is the reverse, with to-day's prices the minimum notch.

So few eastern spruce cargoes have arrived that a record would be superfluous. The fact is that the vast consumption of stumpage in New England through the production of wood pulp is so heavy a percentage, that, with normal consumption, New England to-day can produce no more lumber than is required for use within her own borders.

Increased Canadian Shipments to Barbados

Although the general imports into Barbados during 1913 showed a large decrease in value, the imports from Canada increased. White pine, spruce and hemlock were imported to the value of over £40,000 and shingles to the value of over £15,000, the greater part of which came from Canada. All the pitch pine and nearly all the staves and shooks came from the United States, and a falling off took place in the quantity of the latter from Canada. For some years past an effort has been made to substitute other woods for the American oak known as the Portland pack, and in 1911 the quantity coming from Canada was valued at £5,395. The requirements of this trade have been pointed out frequently and the dimensions of the staves given. This resulted in an attempt being made, but evidently the effect is being relaxed as it is believed that staves made of Canadian birch, if properly shaped and made to dimension would replace to some extent the oak stave now in use. The imports of wood from Canada during the past four years have been valued as follows:

Wood	1910.	1911.	1912.	1913.
White Pine and Spruce ...	£31,409	£43,771	£32,122	£38,126
Shingles	12,856	11,685	10,891	14,473
Staves	4,086	5,385	3,334	429
Manufactures, Furniture ...	685	796	766	807
Total value of principal and other articles	151,985	188,281	183,800	192,495

S. P. Musson, Son and Company, Barbados, report under date of June 5th as follows:—

Lumberstuffs—White pine—there have been no arrivals during the fortnight, but stocks on hand are sufficient to last for some time to come. Spruce—No receipts, but we are expecting a cargo, which will supply present requirements. Pitch pine—No arrivals, market amply supplied. Shingles—Arrivals consist of 2,347,000 extra No. 1 cedar laying by the Trn. Schr. "Alvina Theirault" and from St. John, N.B., and 86,000 Long Gaspe by the S. S. "Chaudiere," both lots to our address, and which are now on offer. Shooks—The only arrival is 400 bdls. by the S. S. St. "Ninian," imported on dealers' account. Wood hoops—Receipts consist of 270 bdls. by the S. S. "Savan" imported by a dealer.

Gordon Grant & Company, Ltd., Port-of-Spain, Trinidad, reported under date of June 8th that stocks of white pine and spruce are running low at that port and that both are saleable.

Oak Staves and Spoolwood in England

The Canadian Trade Commissioner at Leeds, Eng., in a recent report dealing with the market for oak staves, says:—A demand exists in this district for oak staves and one local firm import as many as 50,000 at a time. The staves required should be made from quartered white oak and are used in the manufacture of churns, casks and for tightwork generally. At present, supplies reach here from New Orleans and it would be interesting to learn what Canadian makers can offer in this line. The sizes in demand range from 18 inches upwards in length and 4 inches upwards in width. The thicknesses

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vary, the chief sizes being 1 inch, 1⅛ inches, 1¼ inches, 1½ inches, 1¾ inches and 2 inches. Maple bars are required in multiple lengths of 6 inches, the squares varying from 1¼ up to 3 inches. The bars should be sawn from dry clean timber and for purposes of shipment are put up in bundles of twenty and securely bound with wire.

Lumber Shipments from New Brunswick

Lumber shipments to British ports from St. John, New Brunswick, for the seasons ending May 31, 1913 and 1914, were as follows:

Ports	Spruce. 1913 Feet	Spruce. 1914 Feet	Birch plank. 1913 Feet	Birch plank. 1914 Feet	Birch timber. 1913 Feet	Birch timber. 1914 Feet
Liverpool	12,990,759	8,885,530	178,505	574,100	464	976
Manchester	6,370,812	4,013,182	72,289	.....	...	118
Channel	2,264,795	55,204	.....	.....	...	...
Glasgow	4,080,930	1,115,052	473,035	.....	901	304
London	4,779,305	2,509,593	2,705,396	3,023,266	224	...
Ireland	6,642,120	6,010,198	.....	20,782	...	...
Australia	.....	110,000	.....	.....	...	...
South Africa	2,241,625	2,463,823	.....	.....	...	...
Other ports	.....	2,830,995	.....	.....	...	...
Total	39,370,346	27,993,577	3,429,225	3,618,148	1,589	1,398

The Wilson Lumber Company, Portland, Me.

The Wilson Lumber Company (Incorporated), Portland, Me., U.S.A., who have recently joined the advertisers in the Canada Lumberman, are wholesale dealers in an interesting variety of lumber stocks. The office of the company is at 462 Commercial street, Portland, Me., and their yard is located on Hobson's Wharf at the foot of High street. In this yard the company carry several million feet of lumber, composed mostly of cypress and North Carolina pine. They operate their own cypress mill under the name of the Wilson Cypress Company at Palatka, Florida. Throughout the United States, the stock produced at the Palatka mill stands second to none. In North Carolina, the Wilson Lumber Company handle stock from the Atlantic Coast Lumber Corporation, Georgetown, South Carolina. The latter company have one of the largest and most up-to-date North Carolina plants in the south, and the stock which it produces is exceptionally choice. The Wilson Lumber Company represent the Atlantic Coast Lumber Corporation in the State of Maine, and also in Northern New Hampshire and Vermont, and the Canadian provinces. In hard pine, the Wilson Lumber Company have close connection with two or three successful southern firms. They handle a large quantity of rift flooring which comes from a first class mill in Alabama. They can also secure from the same mill rough strips, which they believe are cheaper to ship into the Canadian provinces, because in this way the heavy duty charge is avoided.

With connections of this nature, the Wilson Lumber Company is in an excellent position to supply the Canadian trade with either car shipments direct from the south, straight or mixed cars from their wharf at Portland, full cargoes of North Carolina or full cargoes of cypress and hard pine from their mills at Jacksonville and Palatka, Florida.

The president of the company is Mr. A. E. Wilson and the vice-president is Mr. F. H. Wilson, both of whom are officers of the company in the south and are personally interested in the Portland Company. Mr. R. B. Wilson is treasurer and manager of the Portland end of the business.

April Report of B. C. Forestry Department

The April report of the British Columbia Forestry Department, issued recently by H. R. Macmillan, Chief Forester, is as follows:

Total amount of timber scaled: —		
Saw Logs	44,011,322	F.B.M.
Spars, Poles, etc.	892,139	Lin. Ft.
Mining Props	1,945	Cords
Railway Ties	3,241	Cords
Cordwood	17,343	Cords
Timber Exported:—		
Saw Logs	2,394,290	Ft. B. M.
Spars, Poles, etc.	157,673	Lin. Ft.

Forest Branch Revenue, Fiscal Year 1914 to 1915

Total amount of forest revenue for the month of April was $136,227.14, made up as follows:

Timber License Fees	$ 88,701.00
Timber License Transfer Fees	330.00
Timber License Penalty Fees	1,285.00
Timber Lease Rentals	6,759.59
Timber Royalty	29,151.53
Timber Tax	2,424.10
Timber Bonus	3,226.90
Scaling Fees	2,128.67
Scaling Expenses	200.55
Trespass and Penalties	1,226.14
Timber Sales Rentals	132.08
Scalers Examination Fees	95.00
Handloggers License Fees	175.00
Miscellaneous Revenue	391.58
	$136,227.14

Collections for the Forest and Protection Fund amounted to $9,905.48.

Timber Sales completed during April, 1914, together with location, estimated amount, total value and purchaser:

Range 1 Coast—Douglas Fir, 136,000 at $1.25; Hemlock, 221,000 at 60c.; Cedar, 978,000 at $1.25; White Pine, 16,500 at $1.25; Balsam Fir, 23,000 at 60c.; equals 1,364,500 ft. B.M., $1,559.55; A. P. Allison, Green Point Rapids, B.C.

New Westminster—1,045,000 ft. B.M., at 50c., $522.50; George Black, Vancouver and (Lund).

Cranbrook—200 cords, $20.00; Alex. Kerr, Morrissey, B.C.

New Westminster—1,536,955 ft. B. M. at $1.25, $1,921.20; W. G. Dickinson, Victoria.

Total, 200 cords; 3,956,455 ft. B. M., $4,023.25.

Pipe Sizes for Woodworking Machines

Much progress has been made in the way of installing mechanical systems for removing shavings, dust, gas smoke, etc., in factories says the annual report of the Chief Inspector of Factories for Ontario, but it is apparent that there is still room for improvement, and the following table of sizes may be found advantageous when either improving or installing such systems.

Cut-off Saws:—	No. of Pipes	Size of Pipes
10-16 inch diameter	1	4
18-24 inch diameter	1	5
Rip Saws and Re-saws:—		
10-16 inch diameter	1	4
18-24 inch diameter	1	5
24-60 inch diameter	1	6
Band Saws, small	1	3
Buzz Planer	1	4.7
Pony Planer	1	4.7
Diagonal Planer	1	4.7
Four-sided Planer	4	4.7
Bull Planer	2	4.7
Planer and Matcher	4	4.7
Matcher Heads, each	1	5
Moulder	4	4.7
Sash and Cabinet Shaper	1	4
Door Tenoner	1	5
Sash Tenoner	1	4
Sticker, each head	1	4
Panel Raiser, each head	1	4
Mortiser	1	6
Router	1	4
Jointer	1	4.7
Sand Drum, 24-inch long	1	4
Sand Drum, 30-inch long	1	5
Sand Belt	1	4
Floor Sweeps		6

Sizes of Pipes for Planers, Moulders and Similar Machines With Knives or Saws

Lower Knives		Upper Knives	
Length	5 inches	Length	5 inches
Length	10 inches	Length	10 inches
Length	14 inches	Length	14 inches
Length	24 inches	Length	24 inches
Length	30 inches	Length	30 inches
Size of Pipe	4 inches	Size of Pipe	4 inches
Size of Pipe	5 inches	Size of Pipe	5 inches
Size of Pipe	6 inches	Size of Pipe	5 inches
Size of Pipe	7 inches	Size of Pipe	6 inches
Size of Pipe	7 inches	Size of Pipe	7 inches

For planers handling timber the pipe sizes must be increased 25 per cent. High speed planers and matchers require 50 per cent. more area than indicated in the above table.

Canadian spruce and white pine are now being exported to Cuba in considerable quantities. Cuban importers are looking to the opening of the Panama Canal to figure on lumber from western Canada.

The United States Supreme Court recently made a decision in the Los Angeles Switching case, which is of special interest to lumbermen. It dismissed the appeal of several railway companies against the decision of the Interstate Commerce Commission preventing them from making an extra charge of $2.50 a car for placing them on side tracks serving industries within established switching limits.

A Correction

In the Canada Lumberman of July 1st an interesting article was published in regard to the best class of saws to use for small logs. The article was contributed by the well-known consulting millwright, Mr. I. N. Kendall, of Westboro, Ont. Unfortunately, owing to a typograhical error, a line of the article was omitted in the second paragraph, which destroyed the point made by the writer. Referring to the band resaw, as compared with the gang, the article should have read, "Some would prefer the band resaw to the gang, I would too, were it not for the fact that the gang would make more even sawing, providing that it had proper length of stroke, which, according to my experience should not be less than twenty inches for the above work."

SUPPLIES

With apples scarce as hens' teeth and mostly poor at that you had better try the plan which a great many lumbermen have adopted of using in the camps, California Peaches, Selected Valencia Raisins and Prunes. We have some specials in these lines and here they are:

California Evaporated Peaches in 50 lb. boxes	7½
4 Crown Selected Valencia Raisins	6⅞
Oregon Italian Prunes 80/90 in bags 90 lb.	7½
Oregon Italian Prunes 70/80 in bags 90 lb.	8½

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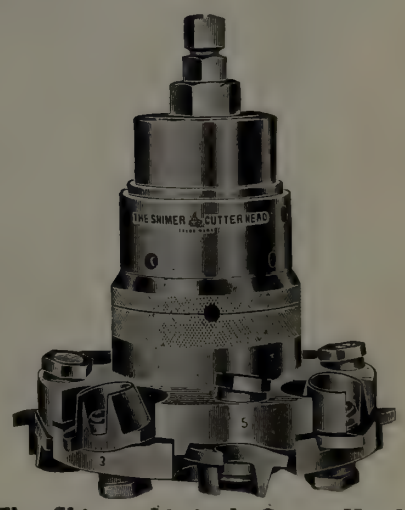
The steady demand year after year for the Shimer Cutter Head is substantial proof that they have been making good in the planing mills of this and other countries, and that mill men everywhere are finding it pays better to use Shimer products than to do the grinding on knives of their own manufacture.

A trial convinces the most skeptical. Over 185,000 Cutter Heads have been sold on the trial plan, and we are willing to make tools to cut your patterns and send them on 30 days trial.

Send measurements today!



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This High Speed Matcher Head has a chucking device that is self-centering, overcoming the objectionable set screw as a fastening device—reliable and practically perfect in results.

It has a special construction of the bit seats, a bit designed for faster cutting and a greater strength of the holding bolts.

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Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND USE—COMMENT AND VIEWS ON AN IMPORTANT BRANCH OF THE TRADE.

Red Gum—Its History, Stand and Cut

The people of the United States are beginning to take inventories of natural resources. Formerly that was not done, because it was customary to consider that all-bountiful nature would go on forever supplying the necessities if not the luxuries of life to the fortunate inhabitants of this country. People are beginning to learn better. They now understand that a natural resource may be compared to a checking account in a bank; it must be taken care of or it will not last indefinitely. Timber belong in that class, and red gum may be given special consideration because it has reached a prominent place in the country's industries, says Hardwood Record. That position has been attained quite recently. The oaks, pines, yellow poplar, walnut, and many other woods were well known long before the general public had heard of red gum; but when once it had attracted attention its capture of a large market quickly followed. Inquiries are frequently made as to the length of time the gum supply will last. The answer depends upon the available quantity, and the rate of cutting.

The range of red gum begins in the Northeast in Connecticut, and follows a fairly straight line southwesterly to Missouri, and from there the boundary of its range veers sharply toward the south to Trinity River, Texas. This tree is found in all the states south and southeast of that line; that is, in the southern states. The largest stands are in the lower Mississippi Valley. Estimates based on statistics collected by the Bureau of Corporations place the total stand of this wood in the United States at about 50,000,000,000 feet, board measure. In amount it is equal to about one-fourth of all the oaks in the country; two and a half times the hickory; three times the ash; one-fifth more than cypress; nearly three times the maple; many times the elm; and except the oaks, it exceeds in amount any other hardwood, or group of hardwoods in the United States. In fact, it is estimated that one-eighth of all the hardwoods of this country is red gum. It is, therefore, apparent that it is a timber of great importance.

The next question is how much is cut annually; for, if the available quantity is known, the rate of cutting will determine the probable time it will last.

The enormous drain on red gum will not exhaust the supply now available in less than half a century. By that time stands now young will be almost ready to cut, if the growing trees are given a chance.

Red gum is a wood entirely different from black gum and tupelo. These three trees are generally spoken of commercially as being closely linked but there is no justification for such an assumption either from a botanical or a lumberman's standpoint. Neither black gum nor tupelo gum commands anywhere near the important position of red gum. Its nearest relative among the trees of this country is the small and worthless witchhazel. If they were human beings they would be rated as first cousins. Good trees, as well as worthy people, sometimes have very shabby relations.

Native Woods in Furniture

The reviewers of furniture styles and tendencies are now predicting a much more extensive use of native woods in furniture because of the pretty general tendency toward the brown tones, says Hardwood Record. This comes according to these predictions as a part of the high favor now being found for black walnut, Circassian walnut, and gum, which woods in their natural colors run to varying shades of brown. Meantime the brown stains in oak are quite popular and the general tendency is toward colors and tones for which native woods seem better adapted than some of the imported woods.

This is about the best news that could come from the furniture trade to the hardwood lumber industry. Furniture manufacturers of late have been falling far short of what the hardwood fraternity feels they ought to have been doing in the way of native lumber consumption. Part of this is because the furniture trade has been a little slow, but it is evident that part of the drag in the furniture lumber market has been due to an extensive use of imported woods and not enough interest in exploitation of native hardwoods in good furniture.

At the furniture expositions mahogany has been strongly in evidence, and this with other imported woods has made up too high a percentage of the good furniture exhibited for the welfare of the market in native woods. One of the best things, therefore, that could happen to the hardwood industry would be for the furniture manufacturers of the country to turn more interested attention to the use of oak, birch, maple, and gum in furniture manufacture.

If the brown tone era in woodwork is going to help this along we are naturally for the brown tone. This tendency, however, might well include most of our native woods in their natural color and with only enough in the way of staining and treating to equalize or harmonize the tone. Yellow birch has much beauty in its natural color, and this goes well, too, in association with brown tints. Gum has its natural brown, and oak both plain and quartered in natural or near natural finish goes well with it. The main thing, however, is to get the interest revived in native woods. If the furniture manufacturers and dealers prefer the brown stains, the native woods will take them as well as any other, and if it leads to a proper appreciation of our hardwoods in their natural finish so much the better. Native woods have been more or less neglected in fine furniture the past few years and it is high time we had a revival and an era of more favor for native woods. It will be good for the hardwood lumber market and should prove good for furniture manufacturers and users also.

Cause of the Fine Figure in Mahogany

The cause of the splendid figure to be found in mahogany was taken up for consideration recently by a contributor to the "Timber Trades Journal." He points out that the interesting question as to the cause of the various kinds of figure in mahogany is important.

There are several causes: the first is the irregular growing seasons; secondly, the divergence and sinuous course of the new additions of wood caused by the branches intercepting the vascular bundles ; and, thirdly, the cracking of the bark as the tree advances in age. The fact of the bark rupturing allows of irregular, wavy, and spiral growths to form; one grain may be more wavy than another, and one have quicker spirals than another, and after several additions, the spiral is lost and then formed the reverse way. Thus arises the difficulty in planing the wood smoothly.

The older the tree the more figure will be found, and near the base of the tree; the younger the tree and higher up the trunk the less figure will be seen. Specimens would illustrate this better than words.

This cracking of the protective tissue or bark, as it is commonly called, would end the life of the tree, but for the fact that the living cells, which are deeper seated, heal up the breach made, by forming new cells just at the parts most needed; they assume the form of scales peculiar to the tree to which they belong.

While the fissure is open and the wound clean, the new cells and vessels form more numerously there than at any other part, on account of the least resistance being offered to the flow of formative sap, downwards from the leaves, to this opening, so as to prevent water entering, or spores, or insects.

Black walnut is a favorite wood for gun-stocks which require very accurate woodwork. American black walnut is easily worked, moderately light, polishes well, and has a pleasing appearance. Pieces of raw material are rough sawed to shape and the ends of grain are painted to prevent checking. Stock is then shipped to the factory where it is seasoned for two or more years before passing into drykiln. Pieces are next sawn to dimension and prepared for roughturning. Eight operations are required in the factory, including shaping edges for guide surfaces, routing and chambering, cutting recesses for attaching butt swivel-plates, routing out space for magazine and trigger guards, and final hard finishing, polishing, and dipping in linseed oil. Then the stocks are ready for assembling.

In making veneer packages the logs are cut by drag saw into bolts of desired length. A thousand feet, log measure, will cut into six or eight thousand feet of veneer says Wood Craft. Bolts are softened in steam and hot water from 12 to 24 hours, and the bark is removed by hand spuds. The bolt then goes to the stave machine. As the log revolves, knives, slice the face of the bolt to the depth of the veneer. The cores are sawed into thin pieces, several being joined with cleats to make a square board, cut round, and then made into bottoms and lids. Hardwoods and waste stave stock go into hoops.

Death of Overton W. Price

Overton W. Price, forester of International reputation, shot himself through the head and died instantly, at Rugby Grange, Henderson County, recently. Ill health is said to have caused the suicide. Mr. Price's last active work as a forester was at Victoria, B.C., last year, where he was called in an advisory capacity during the organiza-

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tion of the forest branch of British Columbia. One of his last public appearances was before the Forest Club of the University of Washington, Seattle, during the month of March. Mr. Price was the right hand man of Gifford Pinchot, in the organization of the United States forest service, resigning from the service shortly after Mr. Pinchot's removal from office. He frequently had been mentioned as the possible successor of Henry S. Graves, whom rumor has it, will shortly relinquish the duties of chief forester. Mr. Price was 39 years of age and was vice-president of the National Conservation Association.

The Care and Arrangement of Stock in the Retail Yard

One of the annoyances as well as risks of damage that the retail lumberman is subjected to is the wind. I don't mean of course the common ordinary circulation of air that is expected in the open and we don't notice, because it is moderate in its force and action says L. H. Ketridge in the Mississippi Valley Lumberman. We call this a breeze and in hot weather is a welcome relief, but, it is when the velocity attains the speed of thirty to fifty miles an hour, that it becomes, not only unpleasant, but dangerous as well in an open lumber yard. It is windy everywhere and in a greater degree at certain seasons of the year, though I used to think when I lived out on the prairies of Nebraska that we had our full share of the moving ozone at all times of the year. But after people had been there a year or two they became accustomed to the stiff breezes, and ceased to regard the every-day wind as the annoyance which it was to them when they first unloaded their car. Understand me, I don't speak of this as a disparagement to my old state of Nebraska, for, as is well known, this pecularity of climate was common to all the prairie states when they were new. I am only referring to it as being one of the climatic conditions that we experienced. Before I left, however, I noticed considerable change in this respect, and though we had winds above the average at times, as they do everywhere, yet there was an absence of the dust storms that we had to endure at an earlier period. I expect though, you fellows out in the prairie country have all had the windy days now that you care for, and therefore you will understand better the allusions I make in this "windy" screed, than would the yard man in the farther eastern states.

In speaking of my own experience I know I will reflect that which was, and is now, common to you all who are running yards in a country town on the prairie where the wind has a sweep over a thousand miles before it gets to you. Like everyone else, I got so that I never noticed the windy weather particularly, until, somebody fresh in from the east would complain of it. But during the summer months there were a good many times when I left the yard at night, I was not sure I would find it in the morning as I had left it the evening before. Many a morning I've gone down and found several thousand feet of stock scattered around the yard and more or less over adjoining lots, entailing a day's hard work to recover it, and put in pile again and this, with the regular business of the day, gave us a double dose of the hardest kind of labor. We had to cuss something to relieve our feelings and so we cussed the country. Besides the work of gathering, and as most of it that took wings was boards it was considerable, because a smashed board is good for nothing, much but kindling and to give away to farmers for seat boards. When you have had several of these experiences during the summer, you develop a hankering for a calmer season.

Dust Storms Damage Stock

But the winds that make life more of a burden to the yard man than any other, are those strong winds that blow for days at a time in the hot, dry weather. They are hard on everybody, but, no other business man in the place experience their detestable meanness as do the lumberman. Every few minutes, there are clouds of dust sweeping through the alleys and whisking in the shed as though the devil himself was using a big broom and throwing it over the sheltered piles for pure cussedness. Every little while a gust will come and with seeming devilish delight toss a lot of boards from piles that you have not had time to tie down. It is dangerous at those times to have a team in the yard, and I've had several runaways from flying boards striking the horses. Very often I've unhitched a team and hitched it outside until the wagon was loaded. With the mercury at one hundred in the shade, one can imagine the feeling this wind and dust gives to the yard man who is facing it all day. At such times, I never wanted to see a stranger come into the yard unless he was a farmer wanting lumber, for his clean appearance would make me think how I must look to him, with streaks of wet dirt on my face caused by the dust and sweat, and no collar, coat or vest on.

There is an old saying, that everyone will eat a "peck of dirt" before he dies, I took all mine in during those days in a Nebraska yard and good big measure at that. I have read a good deal on the importance of having a clean office, and I have written somewhat on those lines myself. But to tell the truth, on those hot, dusty, windy days, I lost the fine edge of my desire to have a clean office, for, in order to have it, I should have had to spend half of my time, in sweeping, washing and wiping. No one but those who have experienced it can realize how the wind drives the dust through and into the ordinary frame building at that time of year in that country. Even though every window and door may be closed it will sift in and cover every thing in sight, and therefore, as I say, I was ashamed to have a stranger call on me during those dusty periods and see the dust covering everything, because, naturally, he would think I was careless about appearances. A yard manager, with only a second man to help him, and sometimes none at all, can only sweep and dust early in the morning, and very often he can't do that, because of the teams waiting to be loaded, or his carpenters hurrying him up for their deliveries. In other words, he is too busy with being up to his neck in work to have a spick and span looking office. There is no time for frills in a country lumber yard on busy days and only one or two men to do all the office and yard work. I am not saying this, you understand as an excuse for having a chronically dirty office as I have known some to be. I like to see, and I like to have a clean attractive office to work in and receive my customers, for such an appearance makes a good impression and helps to draw trade. It is the theories that have been written on the subject, and of the difficulties that yard men have in living up to them, that I am drawing attention to.

A Hard Place to Keep Clean

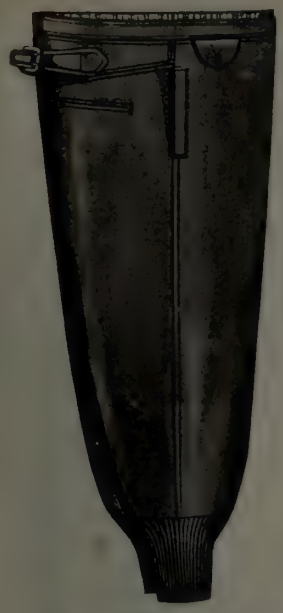
There is probably, no business place in a town that is as dusty in dry weather, as the lumber yard, and at other times, no place so muddy. This is one of the unalterable conditions of the business, practically speaking, because they are not subject to control. The only thing that can be done therefore, is remedy them as much as possible, and even this is not easy to do, because of expense involved in doing it. There are few line yard systems that want to go to the expense of having anything in place of the natural earth alleys in order to lessen the amount of mud and dust in them. The owners don't have to wade in mud nor endure the flying dust while at work. Men can be hired who will do it, because they have to, and the majority of individual yard operators don't want to make the additional investment either, and so put up with the disagreeable inconvenience because of it, and because of having become accustomed to it. 'Tis true, however, there are those among both individual and line yard owners, who have recognized the value and convenience of remedying these conditions spoken of by putting all of their stock under cover, or partly so, in having a large enclosed shed containing the principal part of it. This, of course, does away with the muddy alleys, and shelters the stock besides from both rain and the larger part of the dust. I'll venture to say that any dealer who has had to work in a yard of this kind, will not care to go back to running an open yard again, and those who have worked in both will know the reasons why.

I used to dream of an ideal lumber yard when I had to wear gum boots and swash around in the slush and mud, and go in and out of the office, and look at the great gobs of mud on the office floor brought in by myself and the big over shoes of the farm customers. One may get used to such things, but they never become wholly satisfied with them, and look forward to the time when they will have things more to their liking. The open shed catches a good deal of dust during the summer. The wind seems to take a particular delight in whirling it in there, and there is no way of preventing it when there are dirt alleys, unless there is a water plug in the yard and a hose is used on the surface several times a day. I have often thought that a windmill and a tank would be a good investment to put in a yard where there is no public water system. It would serve a good many useful purposes during the year, besides affording a protection against fire. I did not know how useful city water was about a yard until I had it in my yard here, and I am pretty sure that such a source of water supply as I have mentioned, would be worth all it cost to a country lumber yard.

Stagger Along Without Conveniences

There are too many lumber yards that are trying to get along with the old buildings that were put up years ago, before the business had developed as it has. The little dinky sash room, and the old fashioned molding rack that was built when the yard was first started, have become outgrown, and are unfit for the present needs, and changed conditions in the business. It was the general thought among lumbermen, when they first started their yards, that they would put up such buildings as they could get along with, until they were able to build better. In fact, their lack of capital forced many to economize in this respect, in order to have more to put into stock. It was a case of putting up with what they had to, rather than having what they wanted. But, by the time they had gotten so they could afford to have better buildings, they had become so adjusted to the old and insufficient yard buildings that they were averse to spending any money for a change.

I remember visiting a yard in Missouri where the buildings looked pretty small and shabby, and I hinted as much to the proprietor as he was showing me around, "Well," said he, by way of excuse. "I know they aint anything like what they are over at the new yard, but they



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were good enough for me when I first started here, and I think I'll get along with them as they are and the man who has the yard when I get through with it, can make all the changes he pleases."

This is about the same sentiment that controls many of the old dealers I have talked with on the subject. I have found, too, that where a dealer has been a good many years in a place, and has done little or nothing in the matter of improvements about his yard, he is somewhat sensitive to anyone criticising their appearance and lack of convenience. Somehow, they regard it as reflection on them in a personal way, and consider it the same as telling them they are "back numbers" and too stingy to part with some of their bank account. When this class of old yards changes hands the new owners are apt, in the majority of instances, to be content with arranging the stock a little differently perhaps, and making only a few minor repairs and improvements on the old buildings. Practically, it remains the same old yard, with the same old "tucked up" storage room. Perhaps the outside of the buildings is freshened up in appearance with a coat of paint, and the new owner is credited by the local paper as being a progressive man, but that is all the editor or the general public knows about the real facts about the yard.

Due to Changing Conditions

I have referred to the changing conditions in the business as requiring a better class of yard buildings than formerly. Aside from having an improved office, with the modern conveniences and other things for office work there is an equal need for a better class of storage room for doors, windows and other millwork, as well as wagon stock, if it is handled, and the same is needed also, for the proper care and display of such lines as hardware, paint, inside tiling, and all the things that are among the smaller side lines, which a dealer may elect to carry. I have been in several yards where they carried all these articles I have mentioned, and I could not help but note the disorderly way in which they were kept, for they were scattered around in different buildings and in the corners of the shed and covered with dust and rubbish the wind had blown on them. I thought how much better appearance these articles would make if they were all neatly arranged in some clean store room and they should be, even though they are a part of the stock of a lumber yard. It is just as necessary to have them so in a lumber yard, as it is if they were part of the stock in one of the stores on the main business street of the town. If you were to go in a store and see the stock lying around in disorder, as we see it in some lumber yards, you would put it down that that storekeeper was shiftless and didn't know how to run a store. Because things are in a lumber yard, is no reason why they should not be taken care of and kept in good order.

It is hard to realize how deteriorating the effect is of disorder on the human mind that is constantly in sight of it. It lowers the tone and dulls the edge of effort, you may note this especially in homes where things are generally laying around in a chronic state of confusion and disarrangement. The mother and children, being more in touch with it, will show it in many ways. A child brought up in a home of this kind, goes out into the world with a positive handicap, and will meet with many rude shocks before he is disciplined to act in harmony with orderly people.

The Care of Hardwood Flooring

In a great many of the country yards now, the dealers have to keep in stock more or less hardwood flooring and hardwood finish, and a considerable number, sell it without keeping it in stock by getting it in only as it is ordered. Now, a dealer makes a mistake if he thinks he can keep hardwood flooring in good condition in a lumber shed, and it makes little difference also, whether the shed is an open or closed one. I might say here by way of qualifying this, that where a dealer has a constant run of trade in this kind of flooring and can keep his stock moving there is not the same liability of it getting out of condition piled in a shed bin, as there is where the demand for it is only once in a while. However this may be, the average lumber yard is no place for hardwood flooring, unless it can be put in a tight room where it is not so much subjected to the changes of temperature and is kept free from dust as much as possible. Some of you perhaps, don't handle enough of it to appreciate fully the reason for this, I know I didn't until I had learned by experience. When hardwood flooring is shipped, it comes practically direct from the dry kiln, and from that time on till it is put in the floor, it is absorbing more or less of air moisture according to the degree of exposure. Consequently, when it goes into the floor it is expanded beyond its original width when it passed from the dry kiln through the matcher. Therefore, when the heat of the house shrinks it back to the dry kiln width, it leaves cracks in the floor, to the dissatisfaction of the owner who has paid a big price for a first-class floor. This is not a theory I am telling you, but it is knowledge I gained from an experience I'll never forget.

When I came here, I knew but little about oak flooring and I put my stock in one of the shed bins along with the other lumber. Trade was not very brisk at the time in that class of flooring, so it lay there for some time. I sold a few small jobs out of it and got in some more and put it on top of what was left of the old. In course of time, I sold it all out, and the lower part of the pile is what caused the trouble. The contractor layed it in a floor, and when the heat was turned on for the winter, that batch of old flooring wouldn't stay where it was put. In the spring, that contractor had to make it good, and in turn, I had to make it good to him, and it cost me something like $35 to do it. Then I went to work and built a dry room where I put all my hardwood flooring afterward, and by watching closely, I had no further trouble from that source. From this experience, I would advise the dealer who handles this class of stock to keep it out of the shed bins, or anywhere in the shed, where it is subject to damp air, and dust blown on it by the wind. In some large yards, where they handle a good deal of this stock, they have a dry room, that is continually kept so by artificial heat, and they certainly would not go to such expense, unless it paid them to do so.

Better Care of Mill Work

There has been a growing need for some time, for a better class of storage room for mill work especially, and one reason for this is that the inside finish of a house is not so generally painted as it used to be when surface defects could be filled with putty and covered over with paint. The general way of finishing now is to either stain, or finish in the natural color, and for a good job, the surface must be entirely free from dirt stain or other defects. Casing or molding that lies under a shed is exposed to the wind driven dust and the melting of snow on it is sure to stain and render it unfit for a good job of finishing. Instead of the old way of housing this stock, it should be kept in a tight room of dimensions large enough to store it without crowding, and permitting its being easily handled. Taking care of it in this way, has a tendency to impress the customer with its value more than by the old method of letting it lie around as though it had no more value than common lumber.

People take you at your own estimation of yourself, and it is the same with the care and attention you give to your stock. A sash house should be a tight room also, and large enough to permit the handling of stock without jamming it against something. The stock should be dusted off and put in place, and the floor swept out every morning, just as though it was a store in the business centre of the town. A good deal can be done in the arrangement of the stock to make it an attractive place to take customers.

One of the great failings of retail lumbermen, as merchants, is the general disregard they have in the matter of making this stock attractive. 'Tis true, the same faults affects country merchants generally, but when one is found, who has the enterprise to give his attention to making his show windows and store attractive you will find that he succeeds in drawing people inside. Although the lumber dealer may not have the variety of stock to do this, as the storekeeper has, yet by a little study, he can effect a good many combinations with his smaller number of articles. There is no reason why the lumber yard should not be one of the show places in the town. Those of you who have attended a trade exposition, know how much can be done with a few common things to catch the eye and hold the attention. But, in order to do this sort of thing, we must change the size and character of our yard buildings, we must change the lumber yard into a department store of building supplies, and arrange it in accordance with the new spirit and methods of modern merchandising.

Says It Cannot be Done

H. J. Mackin, sales manaager of the Canadian Western Lumber Company, Fraser Mills, B.C., was in Seattle, Wash., recently on a brief business trip. Mr. Mackin questions the statement recently made concerning the amount of British Columbia shingles going into the United States. He says that there are but 300 shingle machines in the province, and with the slower Oriental labor these machines do not average over 26,000 shingles in ten hours. In addition Mr. Mackin calls attention to the fact that with the tariff on, New Brunswick shingles are going into the New England States almost exclusively, and that the British Columbia manufacturer is now pushing the B. C. shingle into Eastern Canada in markets which previously were dominated by the New Brunswick shingle. He also says that the British Columbia manufacturer has lost none of the general Canadian trade previously enjoyed and that it is, therefore, out of the question that as high as 750 cars of shingles a month should enter the United States from British Columbia, with such a limited producing capacity.

Dressed Lumber is on the Free List

The Board of U. S. General Appraisers has reversed the decision of the Customs officials of the port of Ogdensburg in collecting fifteen per cent. duty upon certain kinds of finished lumber, known as novelty siding and beaded lumber, the appraisers holding that these are included in the free list. The effect of this decision is said to put all lumber that is planed, tongued, grooved and beaded on the free list.

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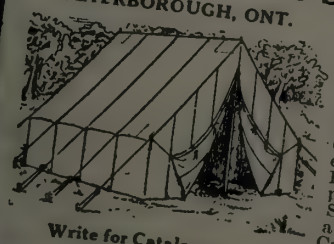

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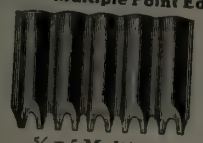

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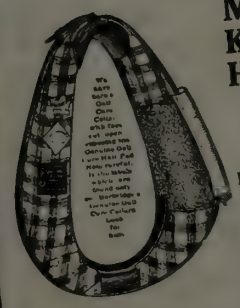

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EDGINGS

Ontario

The Briggs Planing Mill at Brockville, Ont., was recently destroyed by fire, the loss amounting to $20,000.

R. W. E. Burnaby, 45 Adelaide Street East, Toronto, has had plans prepared for a planing mill at Davisville, Toronto. The building will be one storey, 40 x 100 ft.

The shingle mill belonging to the Estate of Alfred McDonald, at Peterboro, Ont., was recently destroyed by fire, the loss amounting to $3,500, which is partially covered by insurance.

J. E. Baechler, Goderich, Ont., has commenced work upon the construction of a planing mill and a sawmill to cost $12,000 to take the place of those which were recently destroyed by fire.

The sash and door factory which is being erected by R. Truax & Son, at Walkerton, Ont., is nearing completion. The roof having now been put on. The building is one storey, 150 x 90 ft., of brick construction, and the cost is about $7,000.

The J. M. Diver, Sons & Company, Limited, has been incorporated with a capital of $100,000, with head office at Sarnia, Ont., to carry on business as lumber merchants. The provisional directors are J. M. Diver, G. B. Diver and T. S. Diver, all of Sarnia, Ont.

The planing mill belonging to the James Smart Manufacturing Company at the corner of Home and Water Streets, Brockville, Ont., was recently destroyed by fire with a loss of $20,000. The flames also destroyed the boiler house and one dry kiln. The stock of lumber was not injured.

The McEachern Tie & Timber Company, Limited, Thessalon, Ont., which was recently incorporated was organized for the purpose of manufacturing and marketing the products of cut-over pine limits, such as hemlock lumber, logs and ties, cedar ties, poles, posts and shingle stock, spruce and balsam pulpwood, box wood and lath stock. The company are now operating on a 1,200-acre limit in Gould township, where they have installed a small mill with a capacity for cutting 800 railroad ties per day. This timber will come out by way of the Mississaga River. The company also intend to manufacture hardwood ties and other hardwood products when railroad facilities make the timber accessable.

Eastern Canada

Mr. Veinot's lumber yard at Riversdale, N.S., was recently destroyed by fire, the loss amounting to $4,000.

The Upper Fraser Lumber Company, Limited, has been incorporated with head office at Montreal, P.Q., and capital stock of $3,250,000.

The Louison Lumber Company's mill at Jacquet River, N.B., was destroyed by fire on July 8th. The mill was valued at about $25,000. The loss is covered by insurance.

The Bathurst Lumber Company, Limited, Bathurst Village, N.B., has secured incorporation from the Dominion Government, increasing its capital stock from $1,000,000 to $5,000,000.

Lumber to the value of $20,000, belonging to the Kent Lumber Company, at Gold River, Lunenburg County, N.S., was recently destroyed by fire. The company's mill was saved after a hard fight, by firemen from Bridgewater, N.S., which is 20 miles east of Gold River.

R. & T. Ritchie, Aylmer, P.Q., whose large sawmills were reecntly destroyed by fire, involving a loss of about $75,000 have commenced work upon rebuilding. The company carried insurance to the extent of about $50,000. They have purchased a mill from McKay Bros., at Eardley, which will be brought down to Aylmer. A large force of men is already at work preparing for the erection of the new plant.

Western Canada

The Powell Lake Mill Company, Limited, has been incorporated with head office at Vancouver and capital stock of $40,000.

The Barclay Shingle Mills Limited, have been incorporated with head office at Vancouver, B.C., and capital stock of $25,000.

The Whitlock Lumber Company, Limited, of Alsask, Sask., has been registered to carry on business in the province of Alberta.

Limits owned by J. W. Vipond, of Nanaimo, near Wellington, on the east coast of Vancouver Island, will be developed by the Wellington Sawmill Company. The mill will have a capacity of 20,000 feet.

M. Irving, who was formerly in the retail business on the prairies, has taken over the mill of the Acorn Lumber Company, near New Westminster, B.C. He will add a dry kiln and make other improvements.

Plans are being prepared for a shingle mill at Powell River, B.C., for the Wasser-Mouatt Lumber & Shingle Company, of Edmonds, Wash., which recently acquired cedar limits from the C. W. Scraff Timber Company, of Seattle.

The new shingle mill of the Huntting-Merritt Lumber Company, Limited, Eburne, B.C., a few miles south of Vancouver has been completed and the company expected to be operating it about the middle of July. The mill has several new devices for perfecting the quality of shingles manufactured and reducing the cost of operation. One of the most important and unique fea-

tures is that the mill is equipped with a sprinkling system. All the shingles will be made from green lumber, the best of which will be used, as none of the clear or A1 logs will be put into lumber.

The Guilford Island Lumber Company has been registered as an extra-provincial company to carry on business in the province of British Columbia. The head office of the company is at Wilmington, Del., and the provincial head office is at 539 Pender Street West, Vancouver.

Fire totally destroyed the plant of the Fairview Manufacturing Company's sash and door factory on June 18th, with a loss on plant of $11,000 and on stock of $10,000. The insurance was only partial. The principals of the company are P. E. Sutherland and F. P. Baldwin, of Vancouver.

The Empress Shingle mill at Cassidy's Siding, near Nanaimo, B.C., has been sold by Mr. Olsen to Messrs. George and Laurie, who have interests at Owen Sound, Ont., but who are making a start in British Columbia. They propose to engage extensively in the industry on the coast.

The Fairview Manufacturing Company, 2054 6th Avenue, Vancouver, B.C., recently lost their sash and door factory by fire. The damage to the building and machinery amounted to about $11,000 and the damage to the stock amounted to about $10,000. Insurance was carried to the amount of $13,000. The owners are Messrs. P. C. Sutherland and F. P. Baldwin.

J. S. Deschamps, Rossland, B.C., intends to build a mill with a capacity of 40,000 feet per day at Nelson, B.C. Mr. Deschamps also has a similar mill at China Creek, near Rossland. He has just returned from a tour in Alberta and reports that crops are looking excellent, from which he expects that there will be a heavy demand for lumber from the prairies in the near future.

Fire caused $15,000 damage to the mill property of the A. Cotton Company, Vancouver, B.C., on July 2nd. The dry kiln, containing 2,500,000 feet of shingles and a quantity of dry lumber, were wiped out with a loss of $10,000, practically all, however, covered by insurance. The moulding factory was also burned, the loss being $5,000; no insurance. The main mill is still intact.

George D. McKay, provincial timber inspector, and R. E. Benedict, of the forestry branch, Victoria, B.C., have returned from a trip along the route of the Pacific Great Eastern Railway, which is being constructed from Howe Sound to Fort George. They found excellent timber along the line. P. Welch & Company, the railway contractors, are erecting mills at Cheakamus and Summit Lake, and Perkins & Company have built a mill at Pemberton Meadows.

The Great West Lumber Company, Red Deer, Alta., expect to start sawing their logs very shortly. The building and the machinery are being overhauled and put in repair. A new nigger is being installed also an extra 50 h.p. slide valve engine, and a fireproof brick boiler house, with concrete roof. The new engine will drive a band resaw, an extra planer, a small rip saw and a trimmer. It is expected to increase the capacity of the mill by from 10,000 to 20,000 feet of lumber per day.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

545. **Lumber.**—A Liverpool firm inquires for samples of white pine and poplar.

546. **Lumber.**—A Liverpool firm inquires for Douglas fir, white pine and spruce.

547. **Lumber.**—A Bootle firm inquires for Douglas fir.

548. **Lumber.**—A Birmingham firm would consider quotations on spruce and hemlock deals, battens and boards.

565. **Lumber.**—A Glasgow merchant desires to correspond with reliable lumbermen in Canada with a view to doing business.

566. **Lumber.**—Some Scotch timber brokers are open to handle British Columbia lumber.

567. **Timber.**—A Glasgow firm is open to purchase ash, hickory and maple in log and sawn to sizes.

568. **Timber.**—Some Glasgow brokers would like to hear from Canadian exporters.

569. **Wood distillation products, chemicals, minerals, etc.**—A London expert who claims a good connection, would be glad to represent Canadian manufacturers of wood distillation products.

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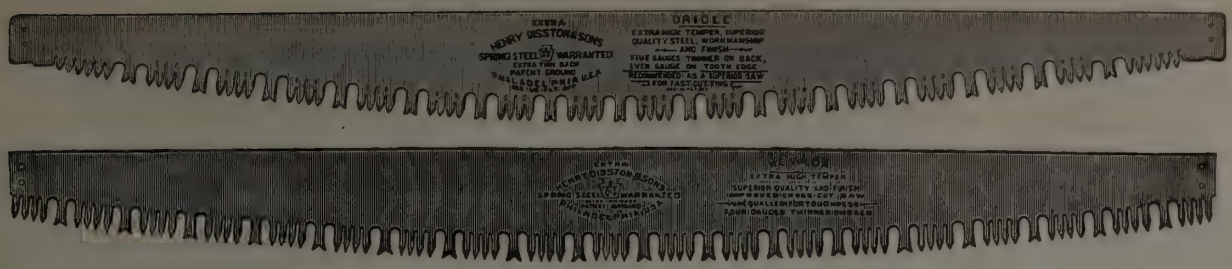

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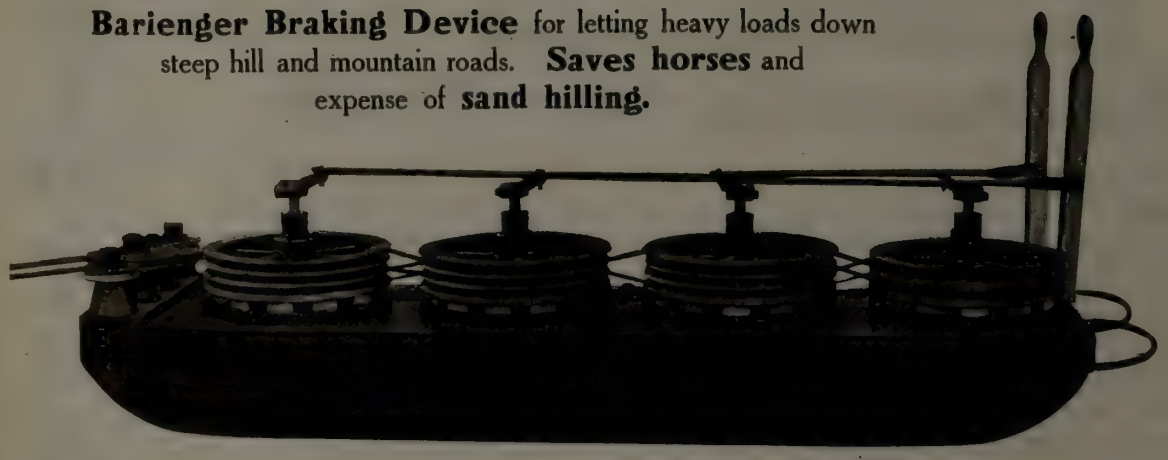

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MANUFACTURERS AND BUILDERS OF

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STAVE HEADING AND BARREL MACHINERY

SAW AND LOGGING TOOLS

For the Manufacture of the Following

STAVES	HEADING
BARRELS	KEGS
COOPERAGE	WOODEN WARE
HOOPS	HANDLES
PAILS	TUBS
CHURNS	FREEZERS
CANDY PAILS	FISH KITS
BOX BOARDS	BOTTOMS
CHAIR STOCK	SHINGLES
CLOTHES PINS	LUMBER

COMPLETE PLANTS

FOR THE MANUFACTURE OF

BARRELS, KEGS, STAVES AND HEADING

OUR SPECIALTY.

FOR PRICES AND FURTHER PARTICULARS, ADDRESS

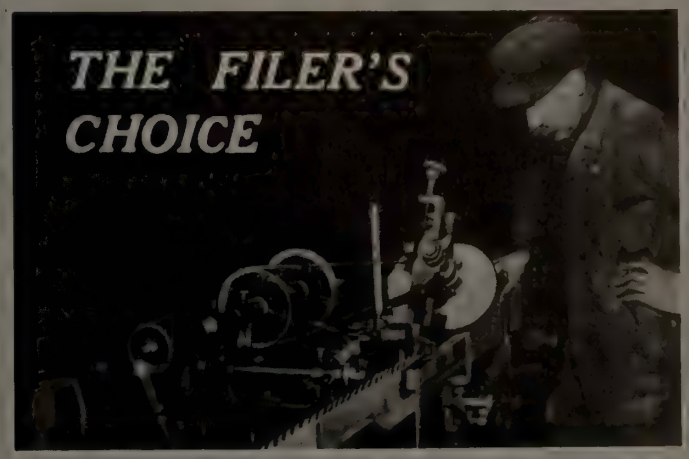
THE PETER GERLACH Co. CLEVELAND O. U.S.A.

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.



The filer's choice of saw gumming wheels is the wheel that cuts fast, free and cool—the wheel that will hold its shape—show long life—and cut quietly, quickly, easily—without case-hardening the saw or drawing the temper. These are just the qualities he will find in

ALOXITE SAW GUMMING WHEELS

And they are made right—right sizes, shapes, grits, and grades.

Good saw gummers are as necessary in your mill as good saws.

⚜

THE CARBORUNDUM COMPANY

NIAGARA FALLS, N. Y.

NEW YORK CHICAGO BOSTON
PHILADELPHIA PITTSBURGH CINCINNATI
CLEVELAND MILWAUKEE GRAND RAPIDS
LONDON, ENG.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better..	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better ..	56 00	60 00
4/4 No. 1 cuts		45 00
5/4 and 6/4 No. 1 cuts		52 00
8/4 No. 1 cuts		55 00
4/4 No. 2 cuts		36 00
5/4 and 6/4 No. 2 cuts		42 00
8/4 No. 2 cuts		45 00
4/4 No. 3 cuts		28 00
5/4 and 6/4 No. 3 cuts		32 00
8/4 No. 3 cuts		33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing ..	27 00	29 00
1 x 8 common and dressing ..	27 00	29 00
1 x 10 common and dressing ..	32 00	34 00
1 x 12 common and dressing..	34 00	36 00
1 x 10 and 12 mill cull stocks.		24 50
1-in. mill cull sidings		22 50
5/4 and 6/4 x 4 m.r., m.c. out.		26 00
5/4 and 6/4 x 5 m.r., m.c out.		28 00
5/4 and 6/4 x 6 m.r., m.c. out.		26 00
5/4 and 6/4 x 8 m.r., m.c. out.		26 00
5/4 and 6 /4x 10 m.r., m.c. out		33 00
5/4 and 6/4 x 12 m.r., m.c. out		34 00
2 x 10 common		26 00
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common.	25 00	26 00
1 x 12 inch box and common .		27 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts		22 00
1-in. mill run Norway		23 00
2-in. mill run Norway		25 00
Norway, c. and cf. 1-in.	30 00	32 00
Norway, c. and cf. 1½-in.	33 00	35 00
Norway, c. and cf. 2-in.	33 00	35 00
Spruce mill culls		19 00
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.		20 00
1 x 6-in. x 9 to 16 ft.		22 00
1 x 8-in. x 9 to 16 ft.		22 00
1 x 10 and 12 in. x 9 to 16 ft.		24 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		22 00
1-in. No. 2, 6-ft. to 16-ft.		17 50
2 x 4 to 12, 10 and 16 ft.		23 50
2 x 4 to 12-in., 12 and 14 ft. ..		22 50
2x4 to 12-in., 18 ft.		25 00
2 x 4 to 12-in., 20 ft.		27 00
2 x 4 to 12-in., 22 ft.		26 00
2 x 4 to 12 in., 18 ft.		24 00
2 x 4 to 12-in., 24 ft.		30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		18 00
Clear in B. C. cedar, kiln dried.		50 00
Douglas Fir		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12 x16, 16x16, 16x18, 18x18, 20x 20, up to 32 ft.		33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.		34 00
10x20, up to 32 ft.		34 50
6x18, 8x18, up to 32 ft.		35 00
6x20, 8x20, up to 32 ft.		36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 00
1¼-in. No. 1 4-ft. pine lath..		4 50
1¼-in. No. 2 4-ft. lath		4 20
1½-in. 32-in. pine		1 60
1½-in. No. 1 4-ft. hemlock lath		3 75
1½-in. mill run hemlock lath		3 50
X pine or cedar shingles		1 05
XX pine or cedar shingles...		2 25
XXX pine or cedar shingles ..		3 20
XX B. C. cedar shingles		2 35
XXX 6 butts to 2-in.		3 20
XXXX 6 to 23-16-in.		3 40
XXXXX		3 70

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4..	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4.	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4 ..	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4..	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4.	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds.	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4 ...	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4.	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common ..	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up $52 00		54 00
1¼-in. & 1½-in. x 8-in. & up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. & up ..	40 00	42 00
Pine good strips:		
1-in.	40 00	42 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	35 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	30 00	33 00
Pine, No. 1 dressing strips ..	29 00	30 00
Pine, No. 1 dressing shorts ..	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips ..	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips ..	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips ..	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips ..	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft. ...	26 00	27 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	21 00	22 00
Pine, s.c. and bet., shorts, 1 x 6	21 00	22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00	25 00
Pine, box boards:.		
1" x 4" and up, 6'-11'	18 00	19 00
1"x 3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	18 00
Pine mill culls stock 1 x 12 ...	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	14 00	16 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16' ..	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16' ...	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.		3 25
Red pine mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

cts.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	65	70

Oak—Michigan and Ohio

By the dram, according to average and quality	60	70

Elm

By the dram, according to average and quality, 40 to 45 feet	70	75
By the dram, according to average and quality, 30 to 35 feet	50	60

Ash

13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40

Birch

14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$ 21 00	22 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. ....$	54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00
1¼ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide....	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up ....$	34 00
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn

1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00

No. 3 Barn

1 inch	21 00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00

Mill Culls

Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch ....$	18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1 ....$	33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch ....$	20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1 ....$	33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft. ...		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft. .....$	21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch .....$	31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths ..	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ..	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	2 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4 ....$	94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	52 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00

(Continued on page 68)

The Mark *of Quality*

Portables That Pay

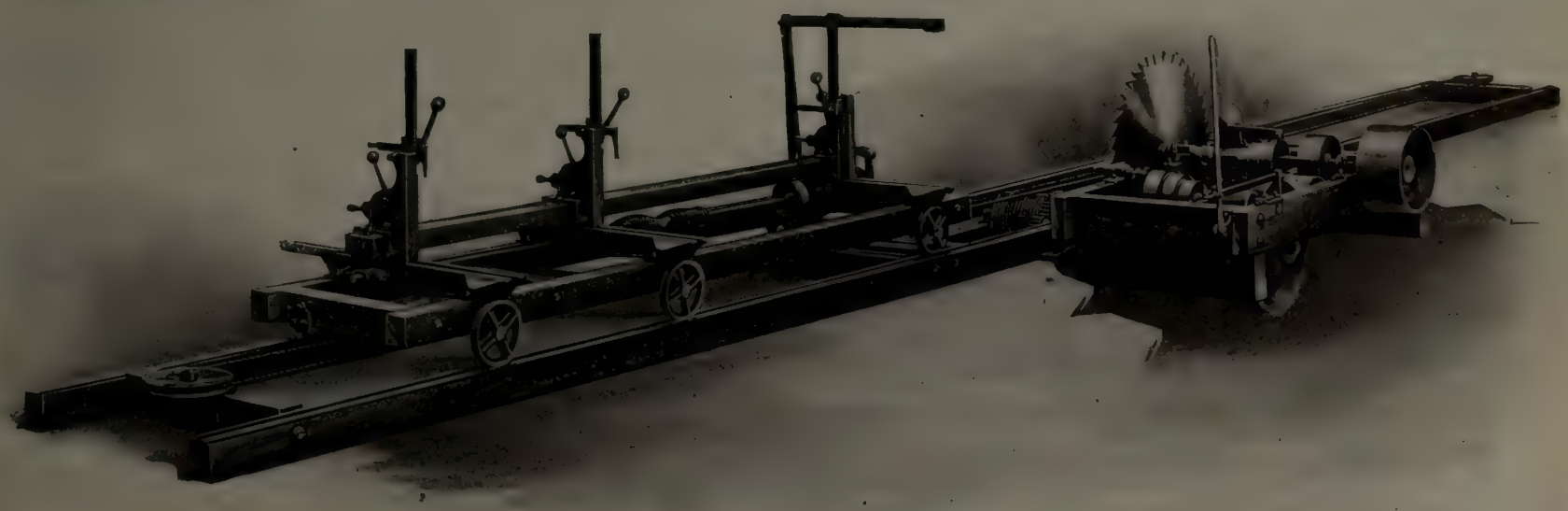
Our line of portable machinery has made good, because it has been designed for just such service.

It will pay you to investigate a line that can so well stand comparison.

DID YOU GET THE BULLETIN?

The E. Long Manufacturing Co., Limited, Orillia, Canada

Robt. Hamilton & Co., Vancouver Represented by : **Stuart Machinery Co., Ltd., Winnipeg**
Gorman, Clancey & Grindley, Limited, Calgary and Edmonton **Williams & Wilson Ltd., Montreal**



See additional Ad on page 78

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	33 - 35	23 - 25	17 - 19
5/4 to 8/4	36 - 38	25 - 27	17 - 19
10/4 to 16/4	40 - 42	30 - 32	22 - 24

RED BIRCH			
4/4	44 - 46	30 - 32	18 - 20
5/4 to 8/4	46 - 48	32 - 34	20 - 22

SAP BIRCH			
4/4	38 - 40	26 - 28	20 - 22
5/4 and up	40 - 42	28 - 30	20 - 22

SOFT ELM			
4/4	38 - 40	27 - 29	18 - 20
5, 6 & 8/4	40 - 42	29 - 31	20 - 22

BASSWOOD			
4/4	36 - 38	27 - 29	19 - 21
Thicker	38 - 40	29 - 31	21 - 23

PLAIN OAK			
4/4	54 - 56	35 - 37	23 - 25
5/4 to 8/4	56 - 58	37 - 39	25 - 27

ASH, WHITE AND BROWN			
4/4	48 - 50	30 - 32	21 - 23
5/4 to 8/4	55 - 57	32 - 34	22 - 24
10/4 and up	64 - 66	44 - 46	24 - 26

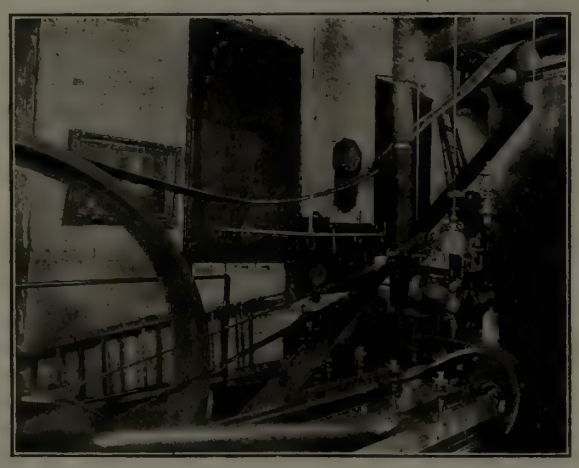
BOSTON, MASS.

White pine uppers, 1 to 2 in...	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 50	27 00
Spruce, 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce, 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p. 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1⅝-in. spruce laths	4 15	4 25
1½-in. spruce lath	3 75	3 80

New Brunswick Cedar Shingles	
Extras	3 50
Clears	2 90
Second clears	2 75
Clear whites	2 45
Extra 1s (Clear whites out)	1 50
Extra 1s (Clear whites in)	1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40 3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.	4 25
Red Cedar Perfection, 5 butts to 2¼	4 80
Washington 16-in. 5 butts to 2-in. extra red clear	3 35

If You Could Make a Safe, Legitimate Investment of $100 Bring You Back $200 in a Year's Time, Would You Do It?

We would and we think You would.



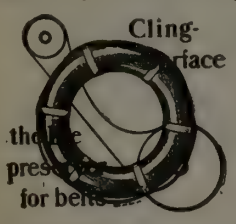
An example:—Mr. Louis J. Landmeir, engineer in the above plant, tells us that scientific treatment of this belt with Cling-Surface costs him only 90 cents per year. Then he goes on to say:

"Belt has had Cling-Surface treatment about 3 years. It is very pliable. No trouble with belt slipping. Never have to take up belt. Used various belt dressings but never had such success as with Cling-Surface."

Can you immagine how 90 cents could have been spent to better advantage?

Don't you think Cling-Surface worth investigating?

Give it a trial and you will be convinced. We quote f.o.b. Toronto.



Cling-Surface Co

1021 Niagara St Buffalo N Y

New York Boston Chicago Denver
Atlanta Memphis Toronto Etc 74

Log-Handling Machinery

All our Loaders, Kickers and Canters are made with cylinders of the style shown in the cut.

Check Valves are provided in each end, and all piping between valve and cylinder is eliminated. These cylinders are extra heavy and very durable, and are absolutely guaranteed by us.

We carry in stock at all times a complete line of Log Deck Machinery—so we can always serve you promptly.

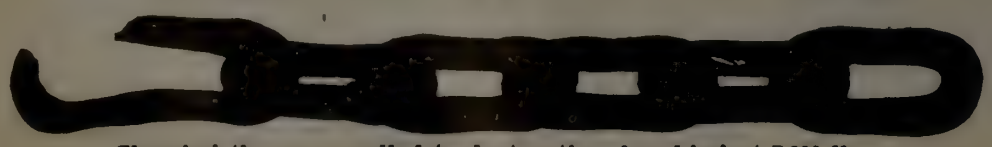
Shall we send our Catalogue?

William Hamilton Company

Peterborough - Ontario

"AJAX" The World's Strongest Chain

Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs. (See how this Chain stretched before breaking.)

Do your log loading with the "Ajax" loading chain, every link of which is guaranteed. The illustration tells a convincing story.

Manufactured only by

Standard Chain Company

Pittsburgh, Pa.

The World's Largest Chain Producers.

Montreal: Alexander Gibb, St. Nicholas Bldg.
Winnipeg: Bissett & Loucks.
Vancouver: John.Burns, 329 Railway St.

FIR TIMBERS FIR FINISH

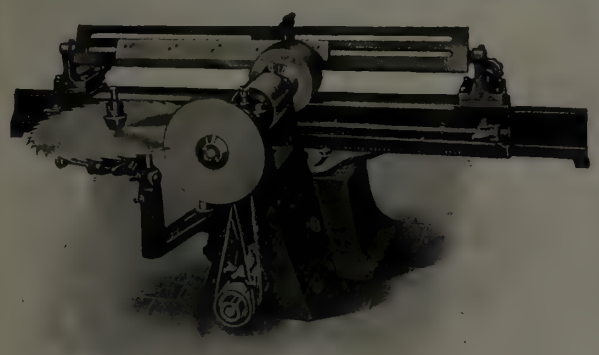
Fir Casing, Base, Interior Finish and Mouldings

RED CEDAR SHINGLES CEDAR BEVEL SIDING

E. H. HEAPS & CO., LIMITED

VANCOUVER, B.C.

Mills at Ruskin and Vancouver, B. C. | HEAD OFFICE: 445 Hastings St. West, Vancouver, B. C.



This Type "E" Knife Grinder and Saw Gummer

is the smallest size we make. A practical up-to-date Bench Grinder at $65.00.

We make other grinders for sharpening knives up to 130-in. length.

Write for catalog showing the complete Rogers-Buffalo line.

SAMUEL C. ROGERS & CO.,

81 Lock Street :-: BUFFALO, N.Y.

DIXON'S Traction Belt Dressing

Nothing will so quickly restore a dried-out, stiff, neglected belt, as this semi-liquid composition of every needed "belt food." The proportions are carefully worked out and there are positively no injurious elements in the mixture. And, having restored a belt to first class condition, Dixon's Traction Belt Dressing will keep it up to the top notch of usefulness.

Write today for "The Proper Care of Belts," No. 238.

Made in JERSEY CITY, N. J. by the

Joseph Dixon Crucible Company

Established 1827

Patented Nov. 29-1892
July 19-1910

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

The Supreme Authority

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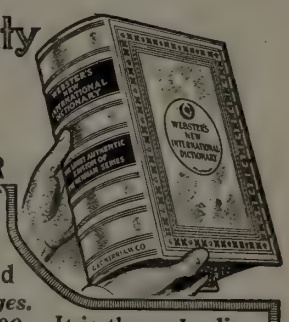

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It defines over *400,000 Words;* more than ever before appeared between two covers. *2700 Pages. 6000 Illustrations. Cost $400,000.* It is the *only* dictionary with the new divided page. A "Stroke of Genius." It covers every field of thought, action, and culture; an encyclopedia in a single book. Type matter equivalent to that of a 15 volume set.

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¶ If so, we can help you to obtain every dollar of its worth.

We possess the expert drafting and mechanical ability; the essential machine shop and equipment for developing practical models; the necessary knowledge for the proper investigation of patent records, etc., and the procedure on obtaining patents that will give you absolute protection.

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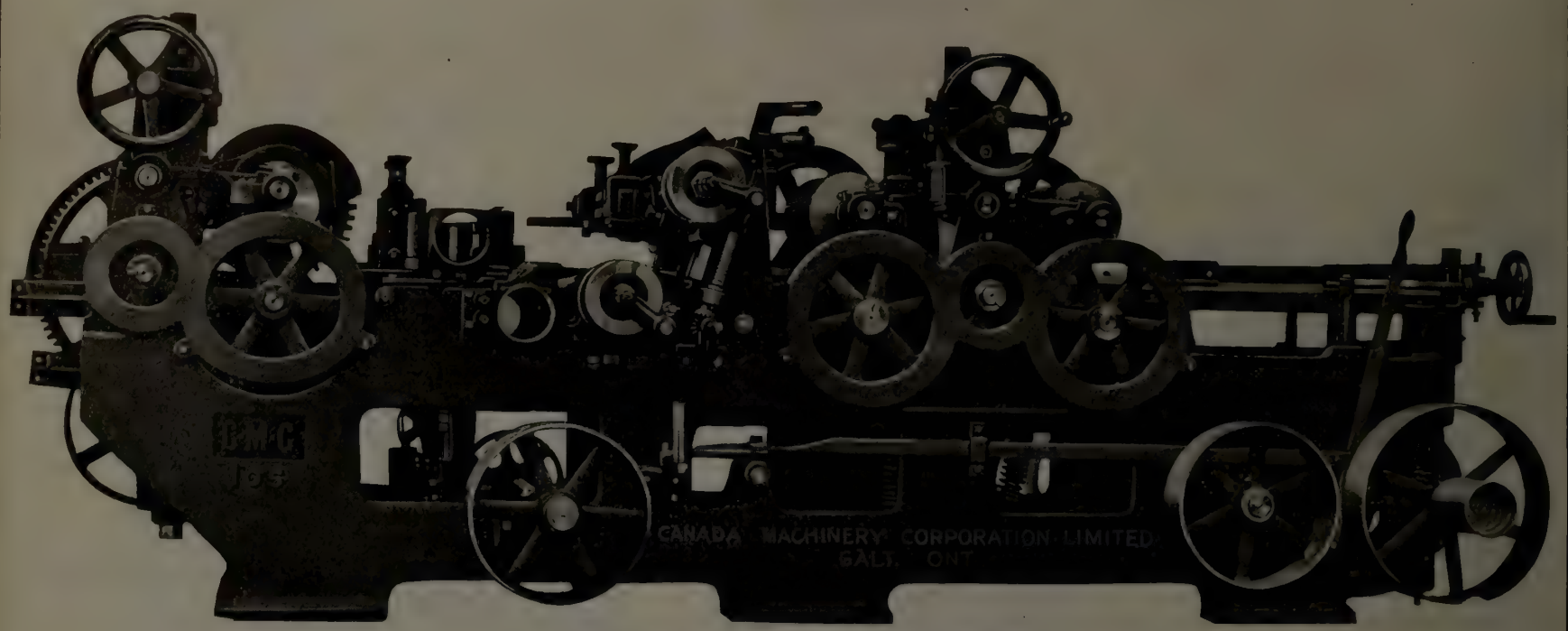
PLANER & C.M.C. MATCHER



15" Double Cylinder Planer and Matcher

Our No. 105 machine is a general purpose, medium heavy machine, especially suited for the general planing mill.

The feed range is from 45 to 100 feet per minute. Planes and matches 15" wide by 6" thick.

Full details and description contained in bulletin No. 105, sent on request.

Canada Machinery Corporation, Limited

Galt - Ontario

Largest Builders of Woodworking Machinery in Canada

SHAVING EXHAUST FANS

for the

Planing Mill

The **Sheldon Shaving Exhaust Fan** is specially designed to give the best results in the Planing Mill, having a saving in power and speed of 25% to 40%.

Write for particulars

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

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Messrs. Walker's Limited, 259 Stanley St. Winnipeg, Man.
Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.
Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.

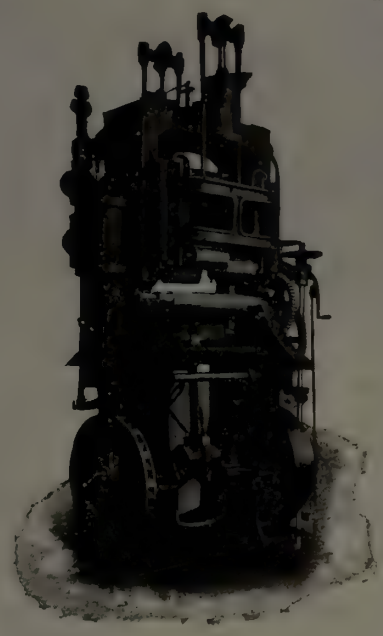
WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

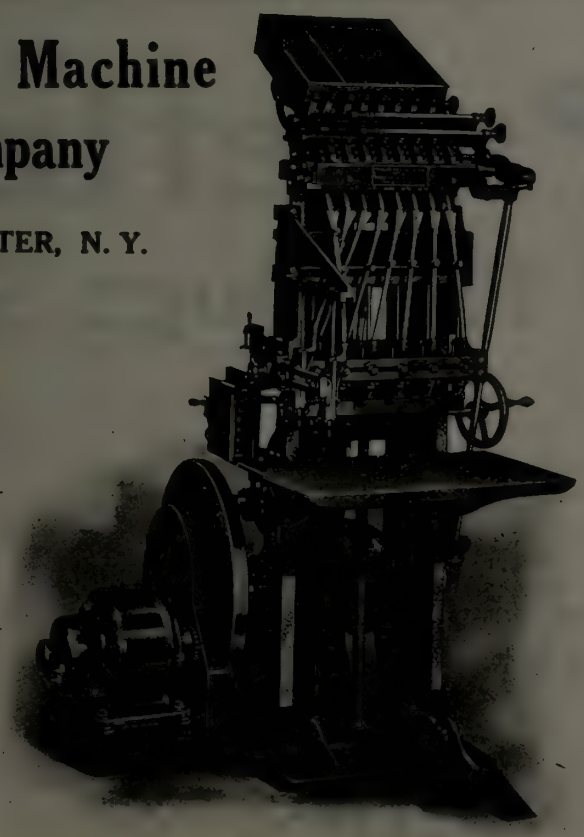
Wickes Brothers

410 White Building — — SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

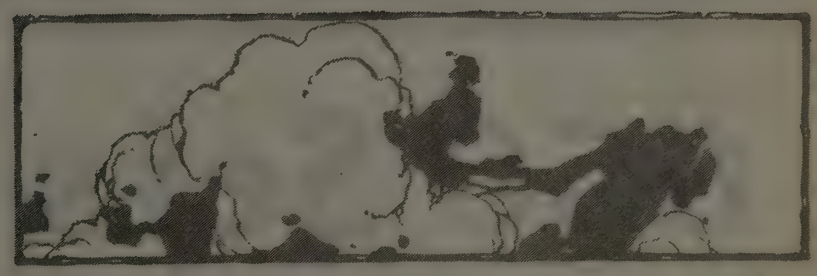
Box Board Matchers,

Box Board Printing Machines.

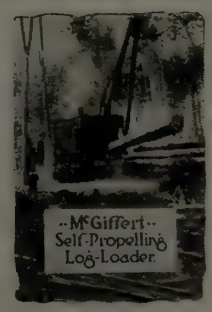
Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N.Y.

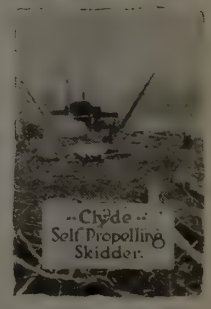


The Clyde System in Logging



aims to cut out as much dead time (time used in moving and getting ready to work) as possible and have the machines put in practically the full day skidding & loading logs

We will gladly show you how it works out



CLYDE IRON WORKS

Manufacturers of Machines for EVERY Logging Operation

CLYDE DULUTH, U. S. A. CLYDE

"Great Port of the Northwest"

Size "S" Single Mill with 16-foot Carriage

Size Husk ... ... 3 feet by 6 feet 3 inches	Width of Carriages ... ... 33 inches
Diameter and Length Mandrel . 2 3/16 by 55 inches	Trucks ... ... 7-inch wheels and 1¼-inch axles
Size Drive Pulley ... ... 20 by 10 inches	Length Track ... ... 32, 40, 48 or 56 feet
Feed per Revolution of Saw ... ... 0 to 3¼ inches	Style and Opening of Blocks ... ... Cl-36 inches
Feed Belt ... ... 4-inch Gandy	Style Mill Dogs ... ... Pony Excelsior
Largest Diameter Saw ... ... 56 inches	Style Set Works ... ... No. 1 Single Ratchet
Length of Carriages ... ... 12, 16, 20 or 24 feet	

With each complete size "S" mill we furnish one saw, wrench, cant hook, feed belt, pulley with boxes or tightener and foundation bolts for husk.

Knight

Pony Lath Mill

This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

THE KNIGHT MFG. CO., Canton, Ohio.

Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C.. E. Long Mfg. Co., Orillia, Ont.

650 Sets Payette's

Famous Patent Mill-Dogs Sold

Why?

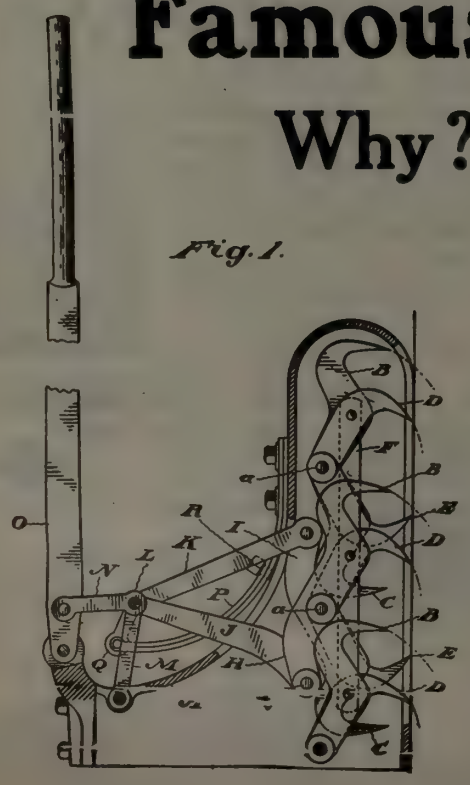


Fig. 1.

Because (1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

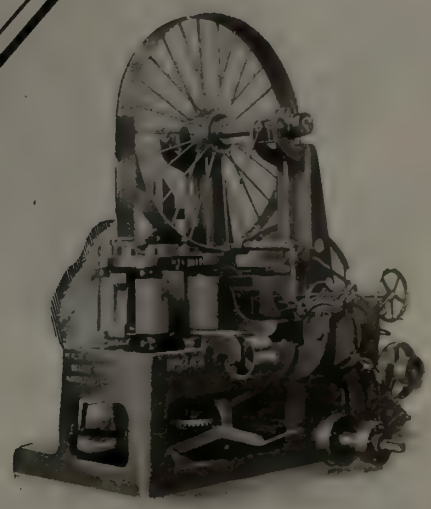
We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.
Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.
Descriptive Booklet and prices mailed free upon request.

P. Payette & Company

Engineers and Machinists

Penetanguishene, Ontario

BERLIN RESAWS Assure More Profits—Every Hour of the Day, Every Day of the Week, Every Week of the Year.



Berlin Resaws Produce Economically

These resaws are especially adapted to Canadian Planing Mill and factory conditions. No. 341 has 54-inch wheels and tilting feed works. No. 342 is a 64-inch, short saw machine with large capacity and powerful feed works.

There's a Berlin resaw especially designed for your work. There are single verticals for light, medium or heavy duty and a twin vertical for long shook stock; the single horizontal and the twin horizontal for resawing short shook stock, besides the slab resaws. All Berlin band rip and resaws and band mills are simple in design and operation and easily kept in order. Whatever ripping or resawing you want to do can be done at lowest possible cost on a Berlin.

Easy to Operate

On Berlin resaws the conveniently placed operating devices make maximum results easy to obtain. That's why any average workman can successfully operate them and also why reduced cost is assured.

The wheel tilt and quick cross-line adjustments are especially conveniently placed. The top saw guide adjusts from the front of the machine; a throw of a lever changes the speed of feed. The rolls are positioned by a quick, accurate set works.

Easy to File For

Filers say that blades on Berlin resaws endure longer runs at fast feeds—that our very sensitive Knife-edge straining device is assurance against cracked blades. The saving made because of low upkeep cost of blades and machine is one reason for installing Berlin resaws. Before you decide on any particular resaw, investigate thoroughly the merit of Berlin "Quality" built band sawing machinery. Berlin resaws are working in many Canadian mills. See one in operation.

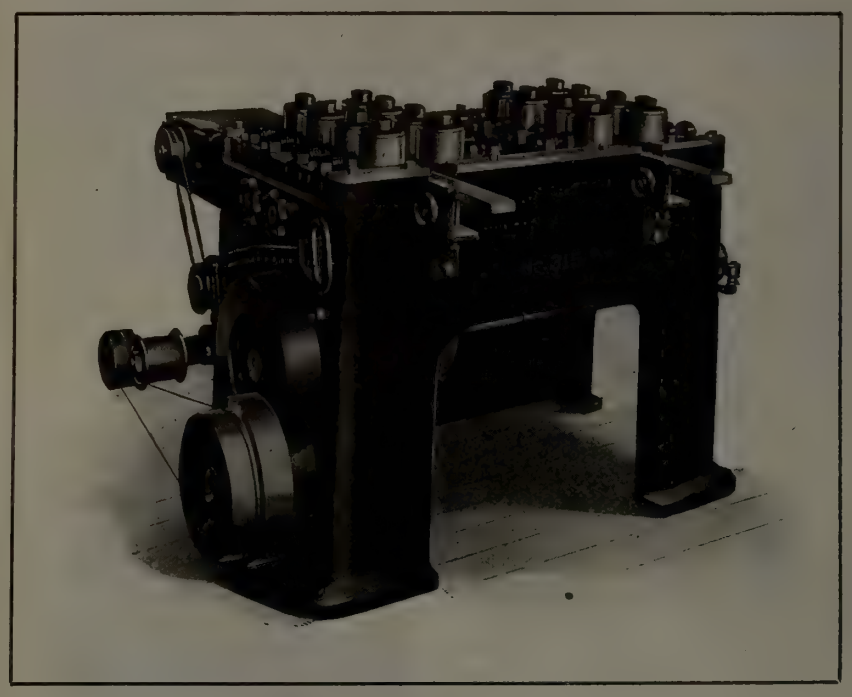
We'll send you complete data and the address of your neighbor user if you'll drop us a card request.

BERLIN MACHINE WORKS, LIMITED, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World

UNITED STATES PLANTS, - - - - BELOIT, WISONSIN

Improved Box Board Matcher



16 driven feed rolls, 4⅛ in. in diameter, each one of which can be adjusted independent of all others.

4½ in. between centres of first and second pair; 5½ in. between centres of second and third pair (the cutters work between this pair) and 4¼ in. between centres of third and fourth pair.

This Matcher is compactly and rigidly constructed with every part readily accessible and the operators are close together when working.

Catalogue gladly furnished which illustrates and describes many other machines built expressly for Box Factories.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

LOW MAINTENANCE COST LOCOMOTIVES

The life of a locomotive depends upon the care taken in manufacturing. Care in manufacturing increases profits by decreasing cost of maintenance and repairs.

From their long experience in locomotive building, our engineers have learned what is necessary to increase the life and usefulness of this class of equipment. They are qualified to co-operate with you in selecting the locomotive best suited for your work. Let them help you.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

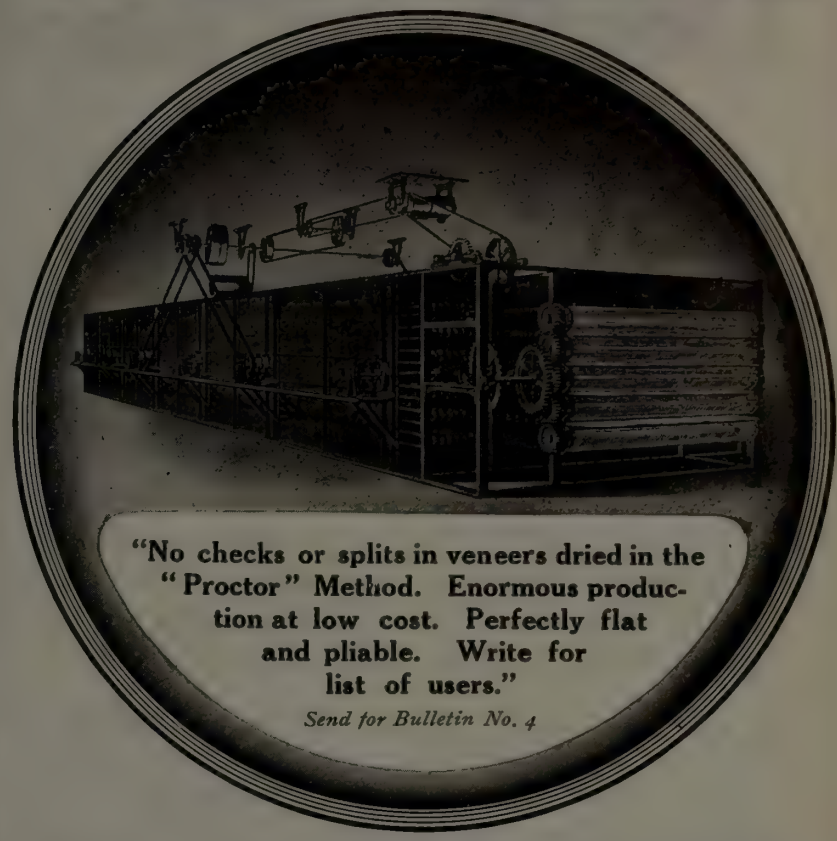
Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

"PROCTOR" VENEER DRYER



"No checks or splits in veneers dried in the "Proctor" Method. Enormous production at low cost. Perfectly flat and pliable. Write for list of users."

Send for Bulletin No. 4

THE PHILADELPHIA TEXTILE MACHINERY CO.
PHILADELPHIA, PA.

This engine is 13 ins. x 16 ins. and weighs 30 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

May we send you specifications

Canadian Locomotive Company, Limited, Kingston, Ont.
Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa, Deputy Minister.
December 20th, 1912.

A Lumber Piling and Unpiling Machine

A Hilke 30 ft. PILER working in the yard of the Shevlin-Clarke Co., Limited, Fort Francis, Ontario.

This machine will pay for itself from one to six times per annum, all depending on the scope of its opportunities.

It reduces by half your cost of piling and unpiling lumber.

It saves half your cost of alley floors or roads.

It reduces by half your number of pile bases.

It cuts squarely in two your costs of roofing lumber.

It saves just half your yard space and this always means much even where land is very cheap, because it costs money and lots of it to haul lumber round a yard.

It takes lumber down from high or low piles with perfect freedom from breakage or injury.

It sets the pace for your men and helps them do much work with little labor.

It is as mobile as the men who operate it and when placed in front of a pile is instantly ready for work.

It removes at once and forever the need of using elevated tramways with their great first cost, impaired circulation and imperfect drying below their surface.

It is a maker for efficiency because it is itself so efficient that it naturally turns your mind toward other yard economies of which there are usually many never before observed.

Patented in the United States and Canada by H. C. Hilke.

Built by

The Hilke Stacker Company

No. 1 Broadway, New York City, N. Y.

Let us send you a catalog.

Radcliff Saws

A new line of "Made in Canada" saws which has established and is maintaining a high standard of manufacture not excelled in the world of saws.

On a policy of uncompromising, unchangeable quality we offer to the **lumbermen** and other saw users a product of the very highest order.

Our repair facilities for every kind of saw are complete and our work thorough and permanent.

Send for our catalogue.

Radcliff Saw Mfg. Co.

LIMITED

TORONTO

The Mark

of Quality

GET ACTION

Long's Quality Feeds are better, because they are

Wisely designed,
Abundantly heavy,
and do such a lot of work on such a little steam.
The real secret is the Valve. It saves time turning the corners.

Send a post card for the Bulletin that tells why.

The E. Long Manufacturing Co., Limited, Orillia, Canada

REPRESENTED BY:

Robt. Hamilton & Co., - Vancouver
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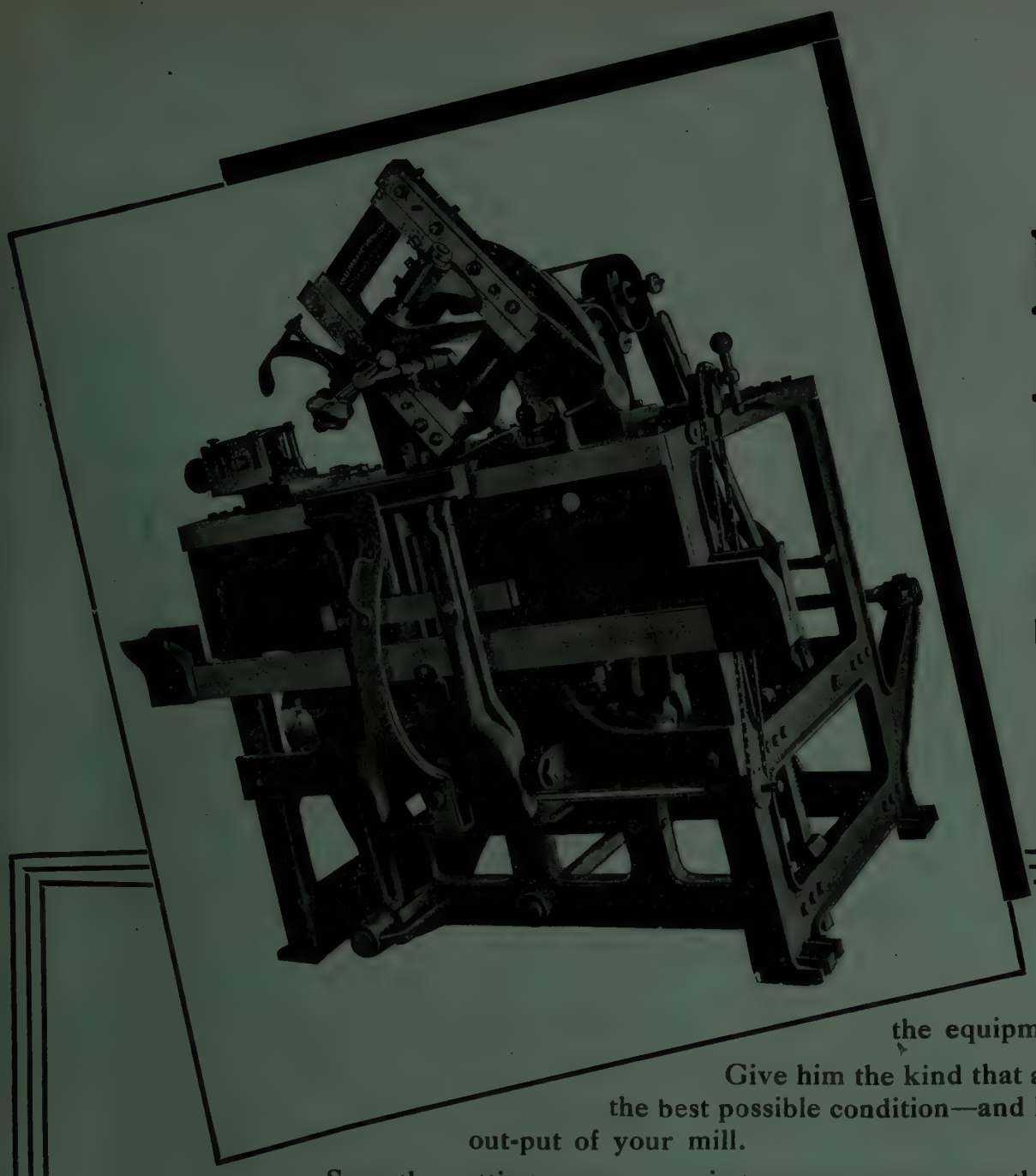

Keep Your Filer Satisfied—

The work your Filer does is limited to a great extent by the equipment he uses.

Give him the kind that allows him to keep your saws in the best possible condition—and his work will be reflected in the out-put of your mill.

Smooth cutting, easy running saws mean smooth sawn lumber—the secret of both is

"COVEL" SAW FILING EQUIPMENT

We can supply COVEL Filing Room tools capable of handling circular saws up to 84″ diameter, and band saws up to 20″ wide.

Both in Canadian and American installations, where severe service is the general rule, COVEL Filing Room Equipment is the first choice of the filer who *knows*.

We specialize in the equipment of Filing Rooms complete—any size, small or large. Write for our catalogue.

The Waterous Engine Works Co., Ltd.

Brantford, Canada

Vancouver, B. C.—H. B. Gilmour. **Winnipeg, Man.**

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$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb.,** Fort William and East; West of Fort William **35c per lb.,** delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

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HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— **New York, N. Y.** **London, Eng.** **St. Louis, Mo.**

WIRE and WIRE PRODUCTS for

Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

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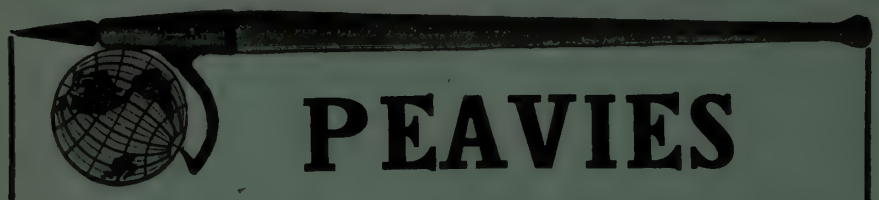

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Cant Hooks, Boom Chains, Timber Dogs

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Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

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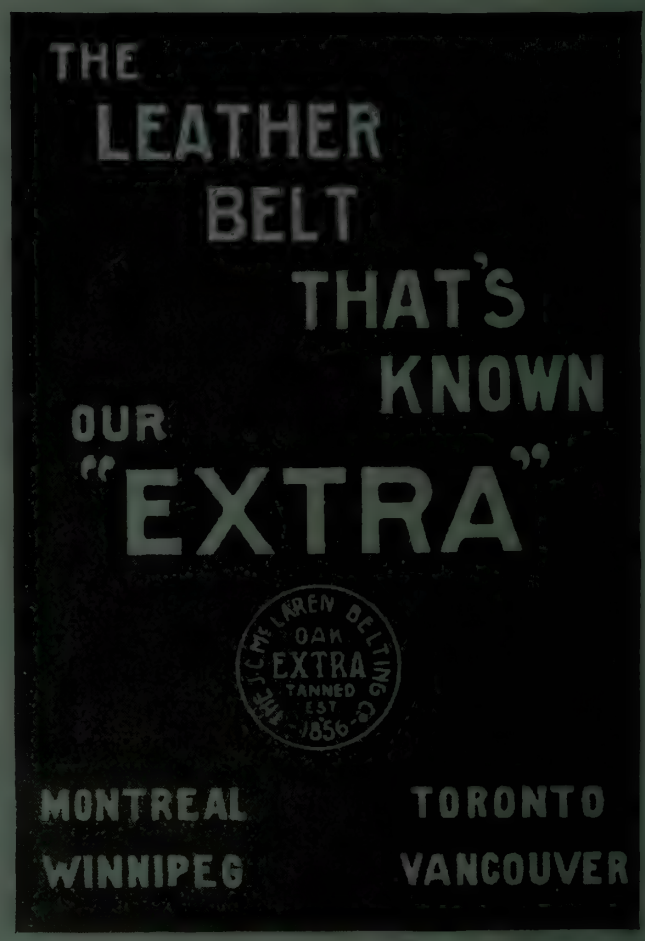

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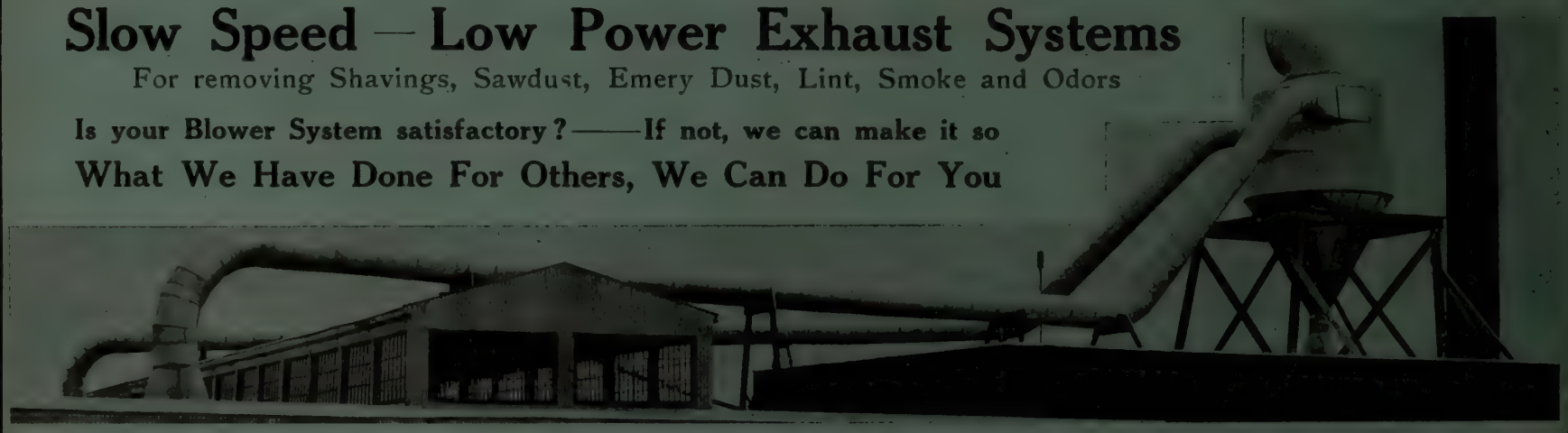

Our System recently Installed in Largest Box Shook Factory in Ontario.

TORONTO BLOWER CO., Toronto, Ont.

Vol. 34 Toronto, August 1, 1914 No. 15

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American - Arcade - Eagle - Great Western
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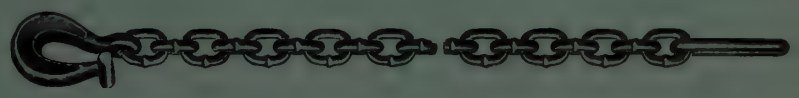

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25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

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No complicated starting apparatus is required as they are controlled by simply closing or opening a line switch. The varying resistance necessary for starting is secured by varying the pressure on a number of carbon discs which form one of the three resistance units. There being no moving contacts there is no chance of sparking and fire risk is practically eliminated as far as your motor is concerned.

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A simple screw adjustment of the resistance units allows the starting torque to be changed from normal to 200 per cent. full-load running torque if required with a starting current of about one-half that required by the ordinary squirrel cage motor.

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We guarantee our "Camel Hair" Belting will outlast, transmit more power, prove easier on bearings, stretch less than any other class of belting running under same conditions, and if our claims are not borne out by results, we are ready at all times to make any rebate on the cost of our belt that will make it cost no more than any other style of belting. Service considered.

Stocks carried by The A. R. Williams Machinery Co., Limited,
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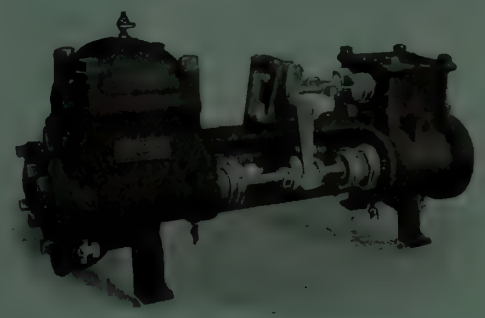

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IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 "	1 x 10	"
50 "	1 x 7 and up	"
10 "	1¼ x 7 and up	"
10 "	1½ x 7 and up	"
2 "	1½ x 12″	"
5 "	3 x 6 and up	"

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

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10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 "	1 x 7″	"
4 "	1 x 8″	"
5 "	1¼ 8″	"
3 "	3 x 10″ and up (mostly 11″)	"

Also "BEAVER BRAND" White Cedar Shingles—full count.
Shipment by rail or water.

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1 x 4 Merchantable Spruce.	1 x 12 Merchantable Spruce.
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Banksian Pine
Birch

Get our stock list and prices.

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Hemlock at Longford:

1 x 4 and up 6/16 No. 2 Hemlock
2 x 4 and up 6/16 No. 2 Hemlock
2 x 6 and up 6/16 No. 2 Hemlock
1 x 4 and up 6/16 No. 1 Hemlock
2 x 4 to 2 x 10-10/16 Hemlock
Widths and lengths piled separately

Hemlock at South River:

1 x 4 and up 6/16 No. 2 Hemlock
1 x 4 and up 6/16 No. 2 Hemlock
2 x 4 to 2 x 10-10/16 No. 1 and No. 2 Hemlock

Hemlock at Cache Bay:

1 x 4 and up 6/16 No. 2 Hemlock
2 x 4 and up 6/16 No. 2 Hemlock
1 x 4 and up 6/16 No. 1 Hemlock
2 x 4 to 2 x 12-10/16 Hemlock
Widths and lengths piled separately

Special bill timbers cut to order. Send us your lists.

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You will not be among the "also rans" if you rely on

Are You Losing

in the race for business supremacy which is being run every day?

If you take the field relying on inferior lumber to build up your business, you stand as much chance of realizing your ambition as a man entering a big race ill-trained and in bad condition.

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HEMLOCK, Pine and Hardwood

The soundest investment on the lumber market.

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Low price for immediate shipment

2 x 7	12/16	6/4 x 8/10	12/16
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Lumber - Lath - Shingles
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Cedar Shingles
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Our Saw Mills and Planing Mills Are Now Running

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Look where you will,
"Bromley's" is the best stock in sight
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Wholesale
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Special Price for Quick Shipment:

4/4 No. 1 Common Birch, Dry.
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1 x 5 Merchantable Spruce, Dry.
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1 x 4/6 Good White Pine Strips, Dry.
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DRY—1″ and 5/4″ FINE DRESSING to CLEAR SPRUCE.

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The rates are most reasonable, write us.

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Will not wash or rub off.

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All thickness, 4/4 to 16/4.

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SPECIAL FOR QUICK SHIPMENT:

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3	"	12/4,	No. 1	" "	" "
2	"	16/4,	No. 1	" "	" "
5	"	4/4,	No. 1	" "	Birch
2	"	4/4,	No. 2	" "	"
2	"	6/4,	No. 2	" "	"
5	"	8/4,	No. 1	" "	"
2	"	12/4,	No. 1	" "	"
3	"	16/4,	No. 1	" "	"
10	"	4/4,	Hardwood Crating Culls		
2	"		Hardwood Heart Squares		
4	"	4/4,	No. 2	Com. & Betr.	Basswood
4	"	4/4,	No. 2	" "	Elm
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100,000 Ft.	5/4	1st and 2nd Basswood
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2,500 "	16/4	" " "
12,000 "	8/4	1st and 2nd Soft Elm
17,000 "	4/4	No. 1 C. & B. Soft Elm
22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8 to 16"—10 to 16 ft.	1st and 2nd White Ash
13,000 "	2 x 6 and up—10 to 16 ft.	No. 1 C. & B. White Ash

Hardwoods Thoroughly Dry
Your Inquiries Will Have Prompt Attention

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HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

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Why demand the highest possible efficiency in

SAWMILL MACHINERY

And remain satisfied on your drive with the

ANTIQUATED HORSE-HEADWORKS

A 20th Century Mill Demands a 20th Century Drive

The Shaw Motor Headworks is the only 20th Century method of towing logs. Try one and you will acknowledge this.

For full particulars write

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Highest Grade

Extra Clear XXX

B. C. Red Cedar Shingles

in Transit

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JOHN DONOGH & CO.

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HEMLOCK

SPRUCE

Dry stock in all sizes. *Quick shipments.*

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MEMPHIS VENEER & LUMBER CO.

Manufacturers: Honduras Mahogany and Southern Hardwood Lumber

SAWN VENEERS

Mahogany, Quartered and Plain Oak and Quartered Red Gum

MEMPHIS - - - - TENN.

JAMES E. STARK LUMBER CO.

Manufacturers: Quartered and Plain Oak

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Poplar and Cypress A large stock of Ash continually on hand

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We Specialize in

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Always on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet.

Wanted 1 in. and 2 in. Hemlock and Spruce. 1 in. Cull Hardwood.

WANTED—Contractors to take out piles during the summer months

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Spruce, White Pine Strips and Mill Culls, Norway and Hemlock

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We have on hand a full line of

Hemlock Lumber, Ties & Post

Cut This Season

Prompt Delivery guaranteed. Write, wire or phone for quotations.

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Timber and Lumber Merchants

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A Typical Logging Scene in Fassett, Que.

When You Want Lumber From Such Logs

as these, we have the stock ready for you. Quality and service is the keynote of our success and by devoting our energy to the selling of Soft and Hardwoods we are able to give you attention that insures the acme of satisfaction. We are open to contract for our

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Manufacturers of

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Representing 22 Mills - 6 Branches
What about a mixed car of mouldings, turnings, doors with shingles and sidings.
Send for our latest catalogue.
It will pay you better than making them yourself.
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Large stock of 1″ 1¼″, 1½″ and 2″ WHITE PINE, Bone dry.
10/13-ft. Spruce and Hemlock
Offices at 97 St. James St., Montreal
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HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

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For Immediate Shipment

15,000 ft. of 3″ No. 1 C. & B. Maple
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Best Quality and Bone Dry

Sawn in 1911 and 1912 and shipped according to the rules of the National Hardwood Lumber Association.

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Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is posstively right, and prices will please

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Mills at Craigs on the B.C.E.R.
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The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.

There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

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Specialties: WHITE PINE, WESTERN SOFT PINE and CLEAR CEDAR PRODUCTS

Special facilities for supplying the Eastern Trade

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White and Norway Pine

Penetang sawn lumber is famous. Let it make you famous

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"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
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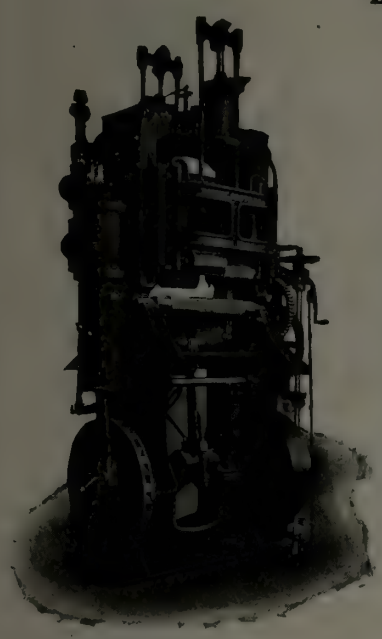
Boards

from cants and flitches, from either hard or soft woods.



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JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

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Mills at Kearney, Ont.

Manufacturers of

White Pine Lumber

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MANUFACTURERS OF

British Columbia Red Cedar Exclusively

4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding.
8, 10 and 12 inch CLEAR CEDAR FINISH.
EXTRA XXX RED CEDAR SHINGLES.

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United States Manufacturers and Wholesalers seeking Canadian Business

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected
WE WOULD LIKE TO HEAR FROM YOU

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Manufacturers of Hardwoods—Any Thickness From

1/30″ SLICE CUT VENEER
1/20″ SAWED VENEER
to
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Specialty:

QUARTERED WHITE OAK

Service First

He profits most who serves best.

Our Winter's Cut of Hardwoods Now Ready For Shipment

LOOK THESE OVER!

38 M. 1 x 6 and wider, 1st and 2nd End Dried White Basswood.
22 M. 1 x 6 to 8 in., 10 and 12 ft. 1st and 2nd Basswood.
40 M. 1 x 7 and 8 in. 1st and 2nd Basswood.
40 M. 1 x 7 in. and wider No. 1 Common Basswood.
24 M. 1 x 8 in. and wider No. 1 Common Basswood.
35 M. 1 x 6 in. and wider, No. 1 Common Beech.
40 M. 5/4 No. 1 Common and Better Beech.
60 M. 5/8 No. 2 Common and Better Beech.
48 M. 1 x 6 in. and wider No. 1 Common Birch.
24 M. 1 x 6 in. and wider No. 2 Common Birch.
38 M. 6/4 1st and 2nd Soft Gray Elm.
25 M. 12/4 1st and 2nd Soft Gray Elm.
18 M. 16/4 1st and 2nd Soft Gray Elm.
45 M. 4/4 6 in. and wider 1st and 2nd End Dried White Maple.
16 M. 5/4 6 in. and wider, 1st and 2nd End Dried White Maple.
22 M. 6/4 6 in. and wider, 1st and 2nd End Dried White Maple.
26 M. 8/4 6 in. and wider, 1st and 2nd End Dried White Maple.

A complete assortment of all grades and thicknesses.

The Stearns Salt & Lumber Co.

Ludington, Michigan

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Below is List of Dry Lumber We Can Ship Promptly

POPLAR.
5/8 18 to 23 panel and No. 1, 1 car.
4/4 24 to 27 panel and No. 1, 2 cars.
4/4 7 to 17 firsts and seconds, 3 cars.

RED OAK.
4/4 firsts and seconds, 2 cars.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 1 car.
4/4 No. 1 common, 5 cars.
6/4 No. 1 common, 1 car.
8/4 No. 1 common, 1 car.

WHITE OAK.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 2 cars.
8/4 firsts and seconds, 2 cars.
4/4 No. 1 common, 3 cars.
5/4 No. 1 common, 2 cars.
6/4 No. 1 common, 2 cars.
8/4 No. 1 common, 3 cars.

BASSWOOD.
4/4 firsts and seconds, 6 cars.
4/4 No. 1 common, 3 cars.

CHESTNUT.
5/4 firsts and seconds, 2 cars.
6/4 firsts and seconds, 2 cars.
8/4 firsts and seconds, 1 car.

The above is a list of dry stock which we can ship promptly. All our own manufactured stock, bank sawed and thoroughly dry. Do not place your order before writing for prices.

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There is an increasing demand in Canada for hardwoods and Veneers. The specialized woodworking industries of this country are away the best managed and most progressive industries. They have a world wide market for their goods.
Reach the lumber and veneer buyers of Canada's woodworking plants through this paper, the recognized authority in the field.

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HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, **Cincinnati, Ohio.** *Write for prices.*

Sell Hardwoods in Canada

Reach the furniture factories, piano factories, sash and door factories through Canada's National lumber medium.

Published semi-monthly. Write to-day for rates.

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Full assortment of grades and thicknesses in Quartered and Plain Oak, Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS. ***IMMEDIATE SHIPMENTS.***

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CATERING FOR

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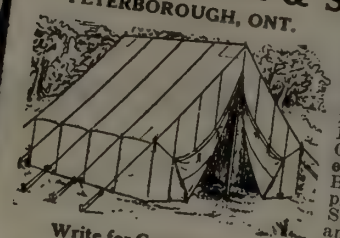
PETERBOROUGH, ONT.



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A good Steel Range for Camp Use

Can be fitted to burn wood, coal or coke. Special price to lumbermen.

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Write us. NATIONAL MFG. CO., LTD, Ottawa.

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Guaranteed to contain 84 per cent. Pure Cane Molasses

Increase the efficiency of your horses, keep them free from Colic and indigestion

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Dexter Horse Feed

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An excellent food for Lumber and Logging Horses.

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Note our NET PRICES per foot on NEW RUBBER BELTING

4 ply.	5 ply.
8" at 31c	8" at 36c
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Send for our Net Price List on Belting of every description.

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Saddle Tank Locomotives
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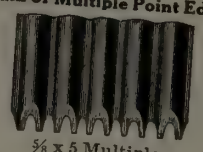

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Any depth and any number of corrugations

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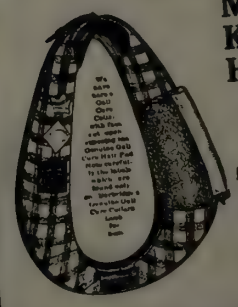

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(PATENTED)

These collars will not hurt your horses' shoulders.

No. 62 Lumber, Hogskin face, $37.00 doz.

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Largest Wholesale Dealers in Hay and Oats in Canada

Write or wire us at any of the above offices. We do the rest.

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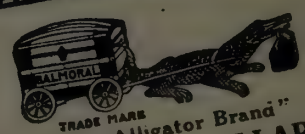

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HARNESS, COLLARS, AND SADDLES

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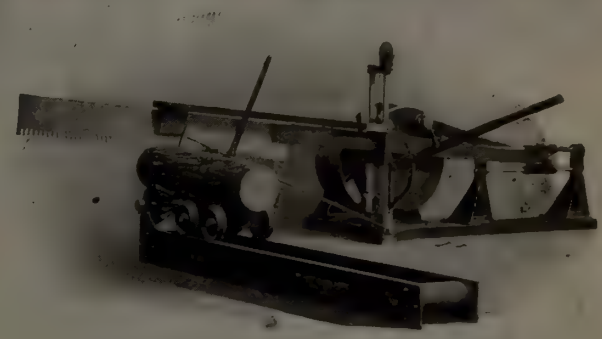
Balmoral Block, MONTREAL

A Drag Saw That Does Not Drag But Saws All The Time

This is an iron frame machine, with attached counter and belt shifting apparatus. It is equipped with a saw blade 5′ 6″ long by 10″ wide with teeth filed to cut both ways, and with a 26″ stroke. The saw can be raised or lowered by a hand lever while the machine is in motion and when raised it can be locked in position while the log is fed forward for the next cut. It will cut logs from the smallest sizes up to 48″ in diameter and is especially useful in dimension mills for preparing stock for hubs, spokes, handles, rims, shafts, poles, neck yokes, hoops, staves and various other woodwork. Write for descriptive circular and price to



No. 2. Improved Drag Sawing Machine

The Defiance Machine Works, Defiance, Ohio, U. S. A.

MAPLE LEAF SAWS

MAPLE LEAF SAWS, **"THE PROVEN BEST,"** absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

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The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

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MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made.

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(FRESH WATER MILLS)

BARCLAY SHINGLE MILLS

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Mills at
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We always have a Large Stock on hand

Oldest and Largest Horse Dealers in Canada

Good horses are hard to find, so deal with an old and reputable firm. Your interests are ours.

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650 Sets Payette's

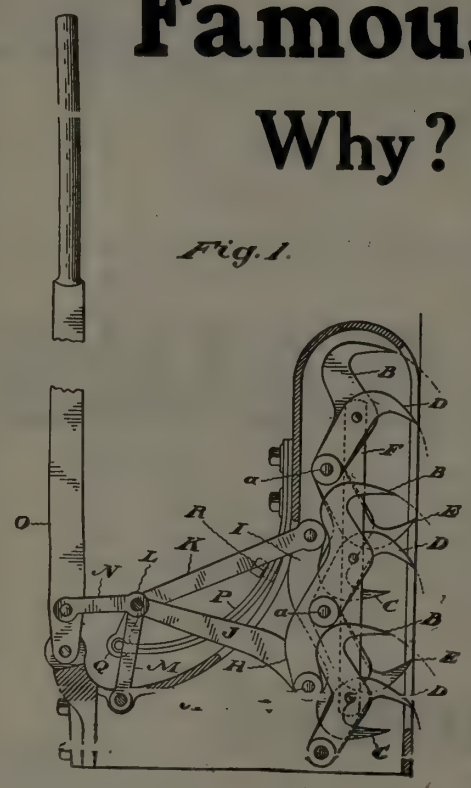
Famous Patent Mill-Dogs Sold

Why?

Because (1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

Fig. 1.



We also manufacture the following High-Grade Saw-Mill Machinery:—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.
Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.
Descriptive Booklet and prices mailed free upon request.

P. Payette & Company

Engineers and Machinists

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Wholesale Lumber — Car and Cargo Shipments

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"Everything in Lumber"

High Grade Thoroughly Dry White Oak
4,000 ft. 10/4, No. 1 Com. and better. 22,000 ft. 12/4, No. 1 Com. and better
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Nice Soft Dry Poplar—Good widths and lengths
70,000 ft. 4/4, No. 2 Common
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I offer the above at attractive prices.
Special Bills Cut to Order. Write for prices

Timber for R. R. Construction and Commercial Purposes, a Specialty.

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¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

Canada Lumberman & Woodworker

Toronto, Ont.
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The Busy Signal

If **you come** to us in quest of timber **now** you will not get that distressing "busy signal."

If you delay we cannot guarantee what the response will be. You will have our attention as a matter of course, but we may be compelled to advise that our present line of bargains is busy.

That will mean that someone else will have taken advantage of the opportunity which today you should turn to your advantage.

Today the Opportunity is yours, without lot or hindrance. If you want to improve it write immediately to

James D. Lacey & Company

Timber Land Factors

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Portland, Ore., 1313 Northwestern Bank Bldg.
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Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

POWER PLANT

2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The

Parry Sound Lumber Co.

Limited

26 Ernest Avenue, TORONTO, CANADA

THE

SIMONDS

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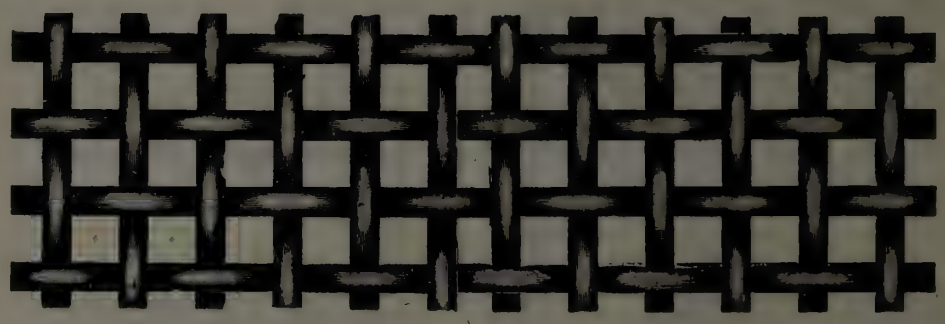

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 34 Toronto, August 1, 1914 No. 15

A Good Market for Canadian White Pine

As the following import figures indicate, Trinidad offers a fair market for a considerable quantity of lumber. The qualities imported are almost altogether yellow pine (pitch pine, as it is known locally) which comes from the United States, and white pine from British North America, says a Trade and Commerce report.

Year	Total		British North America		United States of America	
	Feet.	Value.	Feet.	Value.	Feet.	Value.
1909	7,092,357	£48,451	911,545	£4,119	6,032,981	£37,718
1910	11,634,767	77,903	968,352	5,753	10,561,366	71,365
1911	10,669,806	75,949	820,327	6,204	9,772,466	69,162
1912	11,213,744	84,613	1,708,812	12,892	9,379,917	70,765
1913	6,970,690	53,338	1,345,773	8,775	5,519,724	43,697

It should be noted that of the quantity received from Canada in 1913, 883,518 feet, valued at £5,115 was entered at the preferential rate which came into operation on July 1. The duties are: For undressed lumber $1.60 the 1,000 feet preferential, $2 general; dressed lumber, $2.40 preferential, $3 general.

The quality of imports both from Canada and the States during recent years has been inferior to that received formerly, whilst prices have advanced. This is more particularly noticeable in the hard, or yellow pine, and it is often the case that the soft, or white pine, is now substituted where at one time the former was alone used. There is always a good demand for good lumber, but it is seldom procurable now. Really good, sound, hard pine is much wanted. An excellent, fairly hard wood, known as yellow St. Lawrence, is sold in the Scotch market, but none of it reaches Trinidad. Perhaps the prices make it prohibitive. There is also the Douglas fir, which might to a certain extent replace pitch pine.

It is in this connection that the opening of the Panama Canal may have a certain bearing on the trade, apart from the regular demand existing for white pine. Already firms who look ahead have been addressing lumber merchants in Trinidad both from British Columbia and from California as to the prospects of trade via Panama. Importers look with much interest on the expected developments, and will welcome new sources of supply. Much, of course, will depend on freight. Present rates are, for white pine from Halifax per sailer, $6 per thousand feet; from New York by steamer, $6.50. The late steam contractors for the Canadian service objected to carrying lumber. It may be presumed that if the lumber trade with British Columbia is to be effected, sailing vessels will not be suitable, as, apart from canal dues the British West Indies Islands are dead to windward of Colon, and current and trade wind combined would operate against the voyage being completed within any reasonable time.

Large steamers would probably be employed in the trade, capable of carrying far more than would be required here in one shipment. Fortunately the geographical situation of Trinidad to a great extent obviates this difficulty. Trinidad is directly in the trade route which will open with the Panama Canal between the Pacific side of North America and the River Plate and the Argentine on the Atlantic side of South America; it is both a coaling and an oil station, and in the regular course of things seems bound to become a port of call for steamers going south from the west of North America, and returning, as it is at present for all the leading lines running between New York and South America ports. The necessity, therefore, of ordering or taking full loads would not exist.

Lumbermen in British Columbia would do well to make known the different kinds they have available for export, whether as scantling or boards, and samples should be sent, with statement of prime cost, so that estimates could be made of comparative price.

Lumber is at present commanding high prices, perhaps due to the fact that there are only four large regular importers. The retail prices of pitch pine are from $42 to $53, according to size. White pine and "Baltimore boards," 8 inches wide, $45; "New York" white pine, 10 inches wide, $48; 12 inches wide, $50; Nova Scotia boards, $32 to $38, according to width.

British Columbia's Lumber Trade Problem

The industrial and financial situation in connection with lumbering in British Columbia is outlined clearly and forcibly in a brief memorandum prepared by the Forest Branch of the Department of Lands for presentation before the Dominion's Royal Commission, which is about to make a tour of Canada with a view to reporting upon industrial and trade conditions throughout the country. By reference to the memorandum, which is published elsewhere in this issue, those who are interested in British Columbia may learn just what the trouble has been with the lumber industry during the last few years. The whole situation is explained in a manner which shows that the chief trouble has been too great a producing capacity in the mills, compared with the amount of trade at present available. The remedy is also very clearly shown to be a vigorous campaign with a view to increasing the number and widening the scope of the markets for timber and lumber produced in that province. The present annual cutting capacity of British Columbia mills is 3,000,000,000 feet. During the year 1913 the sales from British Columbia mills amounted to 1,250,000,000 feet; or in other words equipment was available for producing double the amount which was sold. The expense of maintaining all this unproductive equipment is probably the heaviest burden the industry has to bear, and unless much of this equipment is to be wasted, means must be found for increasing the amount of profitable sales.

Even if the sales are increased in the near future so as to equal the present producing capacity, it is certain that, before such a result is brought about, the capacity will have been increased, not in equal proportions it is to be hoped, but by a very considerable amount, because the growth of timber in the province is sufficient to sustain a much larger production than that which the present mills can handle. The provincial forests would, in fact, support in perpetuity a cut four to five times as great as the present annual cut, or between 6,000,000,000 and 7,000,000,0000 feet per year. This information has been secured by the trained foresters of the Department of Lands and we believe that it can be depended upon thoroughly; in fact, some people

believe that the estimate is a conservative one. The Department of Lands desires, naturally enough, to make the forests produce the greatest possible revenue consistent with the perpetual preservation of timber cutting at its highest possible amount.

If only 1,250,000,000 feet are being produced annually and it is possible to produce 6,000,000,000 or 7,000,000,000 feet, the situation is not satisfactory, and calls for attention on the part of everyone connected with the industry. Government and individual efforts must be directed, first of all, to an extension of markets, which alone can enable the industry to expand. These markets must not only be searched out, but they must be studied, and means must be adopted to see that those who could consume the products of British Columbia forests are made acquainted with them as completely as possible.

Transportation problems are of equal importance. There are many large markets today which would annually consume much of the products of the British Columbia forests, if they were made available. Much trade is being lost in eastern Canada today because those who desire British Columbia products cannot secure them. Possibly the Panama Canal will make an important difference in connection with transportation. Many who have studied this feature of the situation believe that the opening of the canal will make it possible for the industry in British Columbia to enter upon a new era in which its markets will be widened as a matter of course. Transportation, in fact, is the key to the whole situation today, and upon it depends, for many years at least, the future prosperity of the British Columbia mills.

The memorandum referred to above includes also an interesting outline of the forest products of British Columbia and an account of the extent of the industry and of the present available markets. In summing up the trade situation, it states that the causes of lack of trade are:—

(1) Lack of information about British Columbia timbers;
(2) High freight rates and other transportation difficulties;
(3) The fact that most of the British Colubmia mills are not built and located so as to handle a large cargo trade, being built chiefly with a view to handling railroad trade.

Report Upon United States Timber Ownership

The United States Commissioner of Corporations sent to the President another letter of submittal in connection with reports of the investigations of the lumber industry. The actual reports, parts, 1, 2, and 3 which are now covered by letters of submittal have not yet been made available, but are expected in the near future. Referring to the ownership of standing timber, the latest letter of submittal states that it covers the period from 1907 to 1910 and treats of the concentration of timber ownership in selected portions of the timber area. The concentration is illustrated by elaborate ownership maps of large regions in Washington, Oregon, California, Idaho and Louisiana, covering 65,000 square miles.

"The mapped areas contain 755,000,000,000 feet of timber, or one-third of all the privately owned timber in continental United States, exclusive of Alaska.

"Ownership in the important timbered regions covered by the maps is highly concentrated. Thus, in the south-western Washington map area two holders have 49 per cent of the timber; in the western Oregon area, five have 36 per cent; in the northeastern California area, six have 70 per cent; in the redwood area, ten have over half; and in the north central Idaho area, four have 59 per cent.

"The control of standing timber in a comparatively few enormous holdings, speculatively held far in advance of any use thereof, and the great increase in the value of timber, resulting in part from such speculative holding, are underlying facts that will become more and more important elements in determining the price of lumber as the supply of timber diminishes.

"Incidental to its study of the concentration of timber ownership, the Bureau has found a corresponding concentration of land ownership. The main fact shown is that 1,694 timber owners hold in fee over one-twentieth of the land area of the entire United States from the Canadian to the Mexican border. In many States these 1,694 own no lands at all. In the 900 timbered counties investigated they own one-seventh of the area.

"These 1,694 holders own 105,600,000 acres. Sixteen holders own 47,800,000 acres. Three land-grant railroads own enough to give 15 acres to every male of voting age in the nine western States where almost all their holdings lie.

"Not all this land is suitable for agriculture. In the South and in the Lake States and in part of the West a large portion of it can be used for agriculture after the timber is removed; but in many parts of the West the land is mountainous and adapted chiefly to reforestation. Much of the railroad-owned land outside the timber regions is arid or semi-arid.

"In the Upper Peninsula of Michigan 45 per cent. of the land is held, mostly in fee, by thirty-two timber owners. In Florida fifty-two holders (nostly timber owners) hold one-third of the land in the entire State.

"This marked concentration in the ownership of land has two important aspects. The first is the concentration of control of the natural resources, other than agricultural, in the area comprised in these great holdings. Besides its timber now standing, part of the land must be depended on, together with the national forests, to supply future crops of timber. Furthermore, some of it has valuable resources of ores, oil gas, water power, etc.

"The second is the possibility that these holdings, which will form a considerable proportion of the future area used for agriculture in this country, must be retained under concentrated control. Fornerly lumbermen often got rid of their cut-over land at nominal prices or let it go for taxes. But as the agricultural possibilities of such land have become apparent this policy is being abandoned. A large part of the present cut-over land is now of considerable value for tillage. That part of the present timberland which when denuded will be arable will have a higher and higher value as land the longer the timber is kept uncut."

Sunday Labor in Pulp Mills

Abbe Casgrain, Chaplain of the Immigration Department in Quebec, in a recent interview expressed himself strongly in regard to Sunday labor in the Province of Quebec, and referred in particular to the pulp mills. "It is a regrettable fact," he said, "that in practically every pulp mill in the Province of Quebec considerable work is done on Sunday. In some places the mills cease running for a few hours, but even during the interval many men are employed to clean the machinery and carry out repairs or work of a special nature.

"It is well to note that Sunday work is always highly paid, and that this creates a tendency on the part of the men to leave over for Sunday repairs or the special work, which could well have been carried out during the week.

"In other places the mill cease work at 7 a.m. on Sunday and start again at 7 a.m. on Monday—and this arrangement, suits very well those who do not observe the Sunday; for it gives them ample time to sleep a great part of the day and enjoy themselves during the remainder of it, and after a good night's rest to return on Monday morning.

"The question naturally arises, why should not work be suspended from midnight on Saturday to midnight on Sunday, instead of from 7 a.m. Sunday to 7 a.m. Monday, and in reply it is alleged by the companies concerned that they cannot get their men to resume work at midnight on Sunday and that, therefore, work has to be suspended till Monday morning. Now, even if this were true, it would certainly not be a sufficient reason for disregarding the law of God—but is it really true?"

"We can scarcely believe it, for we have striking evidence to the contrary, in the case of the Chicoutimi Pulp Company, which operates

three large mills and which we are credibly informed, has not experienced any difficulty in getting its workmen to resume work at midnight on Sunday."

"It is also a remarkable fact that no work of any kind, not even repairs is done on Sundays in the Chicoutimi mills. These repairs are carried out during the week, and the output of the mills has not suffered thereby. On the contrary, the absence of Sunday work, makes the men work far more conscientiously and the result is an increased output, which more than compensates for the time lost by not working on Sundays.

"Now, if Sunday work can be dispensed with at Chicoutimi, there is no reason why it should be permitted elsewhere.

"But quite apart from the economical point of view, the moral effect of Sunday work must be considered and it is undeniable that it has a most demoralizing influence on the workmen, for it practically cuts them off from all religious instruction and that is true whether the men work all Sunday or whether they cease work at 7 a.m. For in the latter case the result is practically the same."

Rules for Accident Prevention

In the annual report of the Chief Inspector of Factories for Ontario, the following rules for accident prevention, copied from the rules of the National Steel Car Company, Limited, are published:

Never try to shift a moving belt by hand.

Never go between or reach between large, fast moving belts.

It is your duty as well as your protection to report unsafe conditions to your foreman or the master mechanic.

A guard is placed solely on a machine for your protection. Don't operate the machine without the guard in place.

Stop machine before cleaning, oiling, wiping, or repairing it. Projecting belts and set screws may catch clothing and result in serious injury.

Don't try to operate a machine you don't understand.

Be sure to replace all guards when through repairing a machine. Think about the other fellow.

If you know of some machine not properly guarded, don't wait until some one gets hurt and say, "I told you so!" Tell the man in the shop before the accident happens and ask him to supply a proper guard.

Don't work with tools, machines or appliances which you know to be improper or defective, without calling their condition to the attention of the foreman or other proper person.

Don't swing sledge or hammer that you know is working loose on the handle, thinking it won't come off until the "next time." You may not be hurt, but what about the other fellow.

Never strike tempered steel with hammer or other metal object. Many eyes are injured or destroyed from this every year.

Don't leave tools, materials or rubbish in aisles or walk ways.

Remove or bend nails down before throwing boards aside. Never throw boards or material aside with nails extending upwards.

Avoid walking on railway tracks, and before crossing any track, "stop, look and listen."

Avoid jumping on any moving cars or engines; your work does not require it and you cannot afford to take the risk.

Don't fool with electricity. It is dangerous.

Don't wear loose, baggy clothing where it is liable to be caught in machinery.

Don't expect your helper to be as good a mechanic as you are. He is not, or he wouldn't be a helper. A little explanation as to the way the work is to be done may save injury to one or both of you.

It is easier to do a thing right than to explain why you did it wrong.

You are responsible for the safety of others as well as yourself.

Safety should be the first consideration of every employee.

Do things the way you are told, then if trouble comes, it is up to the Boss—you are paid to comply with rules. Have you any right not to comply? To be careless, thoughtless or reckless means injury sooner or later to yourself or others.

Editorial Short Lengths for Busy Readers

The town of Hearst, Que., on the line of the Transcontinental Railway was completely destroyed by fire on July 16th. Bush fires had been threatening the town for a long time and quite a serious fire occurred on June 9th, causing damage to the extent of $50,000. The fire of July 16th completed the work of the earlier fire and left practically nothing of the town behind.

The Minister of the Interior, Hon. W. J. Roche, in a cablegram to the office of the High Commissioner for Canada, under date of July 3rd referred to the crop situation as follows:—"With the crops making satisfactory progress, confidence in the future of Canada is becoming more pronounced. The Vice-President of the Canadian Pacific Railway Company says that, taking the country as a whole, the Canadian crop is making excellent progress, and with average weather conditions the largest quantity of grain ever harvested is in sight. Mixed farming appears to be taking hold of the country in a wonderful manner. The General Manager of the Grand Trunk Pacific Railway Company predicts the largest harvest on record for this year, and says that with the splendid harvest there will come an improvement in trade conditions throughout the Dominion."

Hon. W. R. Ross, who recently returned from a trip through New British Columbia, which is being opened up by the Grand Trunk Pacific, the Canadian Northern Pacific, and the Pacific Great Eastern Railways, is very enthusiastic in regard to the great natural resources of that part of the Province. Referring to the timber resources of the country, he said: "The lumbering industry will be a great factor in the development of this valley. The forest resources of the territory tributary to the Grand Trunk Pacific Railway have been generally underestimated. The reports of officials of the Department of Lands show that there are large areas of timber on the tributaries of the Upper Fraser which compare favorably with the best stands of pulp and lumber regions of Eastern Canada. The presence of this timber is hastening development. Lumber manufacturers, attracted by the high quality of the lumber for building purposes and tht short freight haul to the prairies, are now building saw mills, the number of which will, doubtless, be rapidly increased. The sawmill is an agency in settlement, and will play its part in this valley. Only a comparatively small portion of the merchantable timber in the Northern Interior has been disposed of under license, the remainder belongs to the public and constitutes a great source of revenue. Recently a sale of 1,918 acres of tinber was made, the estimated revenue being about $50,000, about $25 an acre, and a condition was made that the timber be removed within three years in order that the land may be released then for agricultural settlement. From the train en route from McBride to Fort George several mills were seen, one of the largest, at Willow River, having a capacity of 100,000 feet per day."

An interesting petition has been filed in the Supreme Court in the case of J. P. Marion, insolvent; P. L. Turgeon, curator; and J. and W. Duncan, Limited, petitioner. The petition alleges that by judgment in May last the curator was ordered to saw 8,000 logs lying at a mill at Bedard, Labelle county, which forms part of the estate of the insolvent. The petitioner claims that said logs are his property and should be delivered to him in a certain state under a contract. He alleges that the curator has not had the logs sawn as ordered by the judgment referred to and states that the latter has declared that he cannot comply with the court order. Petitioner declares that he is ready and willing to saw the logs and also to rent the mill and demands that the curator be ordered to give him the contract for sawing the logs and to lease him the mill in question.

Cross Ties Purchased During Year 1913

A Decrease of 6.7 per cent. as Compared With 1912—Over 16 per cent. Imported at Higher Price Than Paid for Native Ties

A bulletin which is being prepared by the Forest Branch of the Department of the Interior, deals with the consumption of cross ties in Canada during 1913. This bulletin is based on reports received from 47 steam railways and 32 electric railways purchasing ties in 1913. The total number of ties purchased was 19,881,174 valued at $8,470,849 and of this total, 3,254,587 ties valued at $1,827,358 were reported as having been purchased in the United States. This brings out the fact that Canadian railway companies import 16.4 per cent of their tie material and pay on an average 13 cents a tie more for this than for the native article.

Jack Pine and White Cedar in the Lead

The decrease in the number of ties purchased in 1913 was 6.7 per cent of the total for 1912. Out of twenty kinds of wood reported the two most important, Jack pine and white cedar, were reported in smaller quantities than in 1912, as were seven of the other kinds of wood.

The use of Douglas fir increased and formed 12.2 per cent of the total as compared to 10.2 per cent in 1912. The use of this wood has steadily increased since 1908. Four other British Columbia species, Western larch, spruce, hemlock and red cedar, all showed increases from 1912 to 1913. The eastern species of these woods all showed decreases during the same year. Oak ties, of which the greater part are imported were purchased in increased numbers but all the other hard woods with the exception of elm showed decreases.

The average price of ties of all classes was practically the same in 1913 as in the preceding year. The two most important woods were purchased at a slightly lower price than in 1912 and of the others, five showed increases and eight decreases.

A total of 19,490,491 ties or 98 per cent of all those purchased in Canada were used by the steam railways. This total is a decrease of 6.4 per cent from the total for 1912.

The ties imported for use by this class of companies amounted to 3,235,022 valued at $1,813,256 and formed 16.6 per cent. of the total.

The Jack pine ties were made up of two separate species, eastern Jack pine (Pinus Bankciana), which is cut in every province east of British Columbia and lodgepole pine which is cut only in British Columbia and western Alberta. Although this is one of the most widely distributed and abundant trees in Canada, the steam railways reported the purchase of 161,023 imported Jack pine ties coming from the United States.

This wood is used for ties chiefly because of its cheapness and abundance and the fact that it is fairly strong. Untreaten Jack pine ties decay very rapidly in the roadbed and the practice of treating them to prevent decay is becoming more prevalent each year. In 1913, 709,227 Jack pine ties received preservative treatment before being laid in the roadbeds of the steam roads in Canada.

Douglas Fir Ties Not Treated

Douglas fir ties are fairly durable and no treated material of this kind was reported in 1913. A small percentage (5.8 per cent) of the Douglas fir ties were imported from the Pacific States.

White cedar (Thuya occidentalis) is one of the most durable woods in Canada and has always been a favorite tie material although its softness makes frequent renewals necessary where the traffic is heavy. Most of the cedar ties used wear out before they decay and therefore preservative treatment is not necessary under prevalent conditions. White cedar ties are obtained in Ontario, Quebec and New Brunswick and 6.6 per cent of those purchased came from the Lake States.

Western larch or tamarack (Larix occidentalis) is a hard strong wood but one which is not so durable that preservative treatment does not effect a saving in its use. The wood is cut in British Columbia and 4.7 per cent. of the ties used in Canada in 1913 were imported from Washington and Oregon. Altogether only 3.4 per cent. of the larch ties were treated.

Eastern hemlock (Tsuga Canadensis) is cut only in the provinces east of Manitoba and is not considered a first-class tie material. All the ties of this wood were purchased in Canada and none were given any preservative treatment.

Oak Ties the Highest Priced

Oak ties were the most expensive on the list among the more important woods and were used for switch ties and on lines where the traffic was exceptionally heavy. By far the greatest part of the oak ties were imported 96.8 per cent coming from the United States, and were made up of a large number of commercial species. The fact that it pays to apply preservative treatment to a hard, strong and even durable wood like oak is demonstrated by the fact that the steam railways in Canada in 1913 purchased 525,623 treated oak ties, this number forming over half (54.3 per cent) of the total.

Hard pine from the southern Atlantic and Gulf States form an increasing proportion of the tie material imported into Canada each year. This wood does not grow in Canada and is the product of at least four different species of pines, the most valuable of which is long-leaf pine (Pinus palustria). The wood of the hard pines when used for ties usually decays before it fails through mechanical wear and therefore it repays the cost of a preservative treatment that will postpone this decay. Of the hard pine ties used in Canada by the steam railways in 1913, 17.5 per cent were treated.

Western spruce is made up of two species which are confined for the most part to the province of British Columbia. Englemann spruce (Picea Engelmanni) is found on the Rocky Mountains and in the eastern part of British Columbia and Sitka spruce (Picea Sitchensis) is cut on the Coast. All the western spruce ties were native material and on account of their rapid rate of decay in the ground 34 per cent of those purchased were given preservative treatment.

Eastern tamarack (Larix laricina) is very similar to the western species and has always been a favorite tie material on account of its spike-holding qualities. About half the tamarack ties were imported and none were reported to have been treated.

Western hemlock (Tsuga heterophylla) is usually considered to be a much better tie material than the eastern species, but in British Columbia where this tree grows it has so many rivals among the good tie timbers that it is not used to a very great extent at the present time. All the western hemlock ties were purchased in British Columbia and none were given preservative treatment.

Eastern spruce in Canada is made up of three different species that grow east of the Rocky Mountains. All the spruce ties were of native material and none were treated.

Chestnut (Castenea dentata) is one of the most durable woods of America although the wood is not to be classed among the hard, heavy tie materials. Practically all the chestnut ties were imported from the eastern States and none were treated.

Of the other hardwoods purchased such as, beech, birch and maple the greater part of the ties were treated before being laid.

Altogether about 12 per cent of the ties purchased by the steam railroads in 1913 received some sort of treatment to prevent decay.

Electric Railway Ties

While the electric railways in Canada in 1913 purchased only 2 per cent of the ties they paid the highest average price for their material.

The total for 1913 was a decrease of 19.1 per cent from 1912. The two cedar species in this class formed together three-fifths of the total, and Jack pine, which was the most important wood used by the steam railways was only of secondary importance. As a general rule the more durable, native woods were purchased by these companies and the treated ties formed less than one per cent of the total. Oak and cedar ties were imported in the largest quantities, together with all the hard pine, beech and maple. Of the oak ties reported 9.3 per cent were treated as were all the imported beech and maple ties.

The only western species reported were, red cedar, Douglas fir and western larch. These companies paid on an average 16 cents a tie more than the steam railways. This price was an increase of 8 cents from that of 1912, increasing with the cedars and with oak. All the other woods showed decreases in average cost.

Preservative Treatment

In Canada in 1913 about 10 per cent of the cross ties purchased by both classes of railways were given a preservative treatment to retard decay. The practice is a fairly recent one, as is seen by the fact that in 1910 practically no ties were treated at all and that the percentage of treated material has increased steadily since that time. The treatment under present market conditions is most profitable when applied to the harder, stronger woods that, if used untreated, would decay before the end of their mechanical life.

One of the handsomest catalogues which it has recently been our pleasure to receive is entitled "The Door Beautiful," issued by the Morgan Company, Oshkosh, Wis. This is the 7th edition to the catalogue and it contains an exceptional amount of extremely interesting information and illustrations. The illustrations are of quite a unique nature, each door is shown as part of an interior view of a house, giving a realistic idea of its effect when installed. The variety shown is wide and the designs are excellent. The catalogue also contains an attractive colored insert showing various finishes which may be secured on wood work recommended by the company.

Poles Purchased in Canada in 1913

Statistics Show Totals Vary Greatly Annually—Good Eastern White Cedar Decreasing

Reports received from 424 pole purchasers in Canada in 1913 were used as a basis for the statistics in a bulletin which will shortly be issued by the Forest Branch of the Department of the Interior. These pole purchasers consisted of 218 telephone companies, 155 electric light and power concerns, 29 electric railays, 18 steam railways and 4 telegraph companies.

The statistics have been divided into two main groups: first, those received from steam railway, telegraph and telephone companies, and second, those received from electric railway, power and light concerns.

The consumption of wooden poles in Canada varies greatly from year to year. There was a decrease of about 30 per cent in the numbers purchased from 1910 to 1911, an increase of 3.9 per cent from 1911 to 1912, and a decrease of 12.2 per cent from 1912 to 1913.

White Cedar Decreasing

Eastern white cedar (Thuja occidentalis) still heads the list as it always has in the past. The supply of good eastern white cedar poles, however, is visibly decreasing, as is demonstrated by the fact that at least 20 per cent of the poles purchased in 1913 were imported from the United States. The western species, red cedar (Thuja plicata) is more abundant and is now taking the place of the eastern species especially in the greater length classes. Poles of this wood are used extensively in the western provinces and more particularly in British Columbia where this tree grows. In the Prairie Provinces the poles are about half of the eastern species and half of the western. Of the red cedar poles purchased in 1913, over 8 per cent were imported from the Pacific States and were classed as "Idaho red cedar" although these are of the same species as those obtained from British Columbia.

Out of a total of 534,592 poles, 12.1 per cent were reported as having been imported from the United States in 1913.

While the total number was a decrease from 1912 to 1913 the total value showed an increase of 6.7 per cent caused by an increase in the average price amounting to $0.39.

Telephone, telegraph and railway companies operating telephone and telegraph lines used 87.8 per cent of all the poles purchased in Canada in 1913. This is a decrease in numbers of 14.6 and an increase in value of 0.3 per cent, the average value to these companies increasing by $0.26.

All the Jack pine, balsam fir, white pine, chestnut and ash poles were purchased by this class of companies.

Railway, Power and Light Purchases

The electric railway, power and light companies' purchases formed only 12.2 per cent of the total, but these poles cost on an average $3.68 more than those purchased by the telephone and telegraph companies.

The total number was an increase of 10.3 per cent over 1912, while the average price was an increase of $0.66. These companies imported over 5 per cent of the poles they used in 1913. They purchased all the cypress poles imported into Canada during that year and also all the western larch poles from British Columbia.

The average prices given for certain kinds of poles which have been purchased in small quantities cannot be considered as indicative of the intrinsic value of that particular wood for pole purposes or even as a fair gauge of its market value, as these individual prices are affected by so many outside conditions such as cost of transportation, size, etc.

The majority of the poles purchased in 1913 were less than 25 feet in length and of this class the two cedar species and eastern tamarack together formed over 97 per cent. All the chestnut and ash poles were of this length, and the eastern tamarack poles were more numerous in this class than those of western red cedar which is only true for this length class.

In the 26-30 foot class the two cedars formed together 98.9 per cent and tamarack poles became of little relative importance. While the cedar species still formed by far the greater part of the poles in the 31-35 foot class, poles of spruce become more important and cypress poles appeared in the 36-40 foot class and here red cedar became more important than white which is not the case with the shorter classes of poles. In the class of poles over 40 feet in length red cedar formed over two-thirds of the total.

W. B. Crawford, a well known real estate man and lumber merchant of the town of Wainwright, Alberta, recently disappeared from his home in a mysterious manner, and no trace of him could be found for a long time. Subsequently the body of Mr. Crawford was found at the bottom of a well on a farm about four miles from Wainwright, and all indications pointed to the fact that he had been murdered. The police are entirely without any clue as to the circumstances surrounding the case.

B. C. Timber Owner Hopeful of the Future

Mr. Fred Abraham, one of the largest holders of securities in the British Canadian Lumber Corpoartion recently expressed his views regarding the lumber industry and the corporation's holdings, as follows:—

The opening of the Panama Canal will mean a good deal to the western lumberman. The freight rate by rail from British Columbia to Montreal and New York is the same. A recent shipment to Montreal cost $27 a thousand feet. The price varies according to weight. It is never less than $20 per thousand, which would represent such lumber as cedar, and the price by rail will average $24. By way of the Canal, lumber will be laid down in New York and Halifax for $10 a thousand. It has been estimated as low as $8. Comparative prices will prevail to Montreal. The significance of these figures will at once appeal to the eastern consumer. The freight rate to European ports will be reduced to $12 to $15 per M. or half the present charge. The canal is now practically open to commerce.

There is a popular delusion in the mind of the always optimistic Canadian that we have in this country so much more coniferous saw timber than the United States that comparison is useless. I don't know how such an erroneous impression came to prevail. As a matter of fact it is less than one-fourth that of the United States, and fully half of this is in British Columbia. We have in Canada about six hundred billion board feet of saw timber. A good deal of the American product is in the northwest states. This is high grade timber and in quality is about the same as that owned by the British Canadian Lumber Corporation. This quality of timber in the States runs in price from $1.50 per M. up.

The holdings of the B. C. Lumber Corporation represent a purchase price of 69 cents per 1,000 feet. The limits were carefully cruised and at a conservative estimate there are at least nine billion feet of timber which at the lowest available market price of $1.50 per M. represent assets of $13,500,000. The company also owns milling property to the value of $2,500,000, which together with about a million dollars in lumber, logs, etc., a conservative valuation of their total assets would be $17,000,000.

A Recent Transaction

The company has about completed the sale of one of its mills for a million dollars, $750,000 in cash, the balance in twelve months at 6 per cent. Their current liabilities represent in round figures $9,000,000 preferred stock, $1,200,000 gold notes maturing in three years and current liabilities of half a million dollars which will be more than recovered out of the sale of its mill. This mill is being sold at a profit. The assets thus stand at $17,000,000 as against liabilities of a little over $10,000,000.

Nine-tenths of the company's holdings are in the wet belt, that is west of the mountains and on the coast where a constant moisture is driven inland by the Japanees current. A fire is practically unknown in this belt.

Standing timber, until sold, like any other similar investment cannot pay a dividend, notwithstanding the fact that the capital invested shows a large annual increase in value.

The holding and the milling of timber are two distinct businesses. Owners of timber limits cannot possibly lose money if they let their timber stand. It will increase from year to year, like well-located real estate, out of all proportion to dividends paid by the average industrial. There is a risk in the milling of timber and only those who are able to give it the closest personal attention make it pay. It is the present policy of the B. C. Lumber Corporation to create a holding company, disposing of their mills at a profit. Standing timber has never declined in value the world over. Favorably situated, as on the Pacific Coast of British Columbia, standing timber will enormously increase in value from year to year.

European Supplies Shrinking

Available timber in Europe is becoming rapidly exhausted. Lumber dealers are bringing it from long distances at great cost. One of the largest, if not the largest, dealers in Europe is now compelled to transport his timber by way of rivers, etc., a distance of nine hundred miles before it reaches the Russian sea board from which ports it is shipped by boat to English and other European markets. The available supply of this firm's timber is practically exhausted. So much so, in fact, that they have offered our company an advance of ten per cent on the price fixed by the B. C. Lumbermen's Association, for our entire output, which offer will be declined because of the Corporation's expresesd policy of converting their company into a holding one.

Pulpwood Destroyed on Anticosti Island

A report from Anticosti Island under recent date said that for several days a fire had been raging in the bush near Ellis Bay, Anticosti. Great havoc had been wrought in the pulpwood area, about seventy thousand logs having been burned, the loss on which will run into thousands of dollars. All the available men in the district were fighting the fire, but with little success. It was feared that the fire might continue until a heavy rain came, and if high winds should occur the situation might become very serious.

Wider Markets Necessary for B. C.

Production Capacity Double the Annual Sale—Information Prepared by Forest Branch for Dominions Commission

The area of British Columbia is 243,000,000 acres. Practically the whole of the Province is wooded. About 30,000,000 acres are covered with accessible merchantable forest of valuable species.

The forest has in the past suffered severely from fire. A young forest now covers about 90,000,000 acres of old burns. This young forest is composed of valuable commercial species, and will reach commercial value in 20 to 60 years.

The estimated stand of mature timber in British Columbia now is 350,000,000,000 feet board measure.

The greater part of the timber is very accessible to transportation. A large part of it is easily accessible from the 7,000-mile protected coast line where are many natural deep water harbours. The remainder can be floated by lake or river to points on railways now constructed.

The most valuable timber for the cargo trade is found adjacent to salt water within convenient reach of harbours. The lower grades of timber used chiefly in the prairies are found in the valleys of the interior rivers, and are floated to the various railways serving the prairies.

Two-thirds of the annual cut comes from with 5 miles of salt water on the shore of the mainland and neighbouring islands within 150 miles of Vancouver. The other third is chiefly from the valleys of the rivers in the south-eastern corner of the Province.

The present annual cut for all uses is 1,750,000,000 feet valued at about $30,000,000.

The annual growth on the forest area of the Province is estimated to be between 6,000,000,000 and 7,000,000,000 feet. The annual growth may be treated as a permanent crop. The non-agricultural lands of the Province, whether now covered with merchantable forest or young growth, are being protected from fire and will produce this amount of timber annually in perpetuity.

The important timber species are:—Douglas fir, red cedar, hemlock, Sitka spruce, white Englemann spruce, western hemlock, yellow pine, white pine, yellow cedar, lodgepole pine, tamarack, balsam fir, and yellow cedar.

These species exist in sufficient quantities to supply any trade continuously. They may be furnished in any sizes the trade could reasonably demand. From amongst them may be secured timber for almost any use; very strong, for any class of construction, heavy or light; durable, for use where decay is rapid; with the qualities of working, beauty of grain, adaptability to polish, which fit them for use in the interior furnishing of first-class residences, offices and banks. British Columbia timber will furnish every need for houses, railroads and public works, roofing, pulp, paper, furniture, cooperage, packing cases, mine timbers, boat building, railroad sleepers and cars, wood-block paving, etc.

Extent of the Industry

There are now 800 logging camps, 400 saw mills and shingle mills, and 4 pulp and paper mills in British Columbia, in which are invested $1,000,000,000. The possible annual output is 3,000,000,000 feet. The labour directly employed when running at full capacity is 140,000 ali men. The value of the product would then be $45,000,000.

The products manufactured in the order of their importance are lumber, shingles, paper and pulp, rough articles such as poles, piles, posts, mining props, and smaller manufactures such as sash, doors, baxes, shooks, and cooperage.

The mills and logging camps in British Columbia have not during the past three or four years been able to run at full capacity. There has not been sufficient demand for lumber.

The effect of present conditions in the lumber market is felt on investments in the Porvince, traffic on railroads, the demand for labour, the market for food and household staples, machinery and produce. Agricultural settlement is affected, as the lumber industry clears the land, furnishes the farmer with employment in odd seasons, builds roads, and affords a profitable market for farm produce.

The capacity of the mills and camps is 3,000,000,000 feet per year. The sales from mills in 1913 were about 1,500,000,000, one-half the possible. This is the argument for wider markets.

Present Markets

The annual cut the past two or three years has been distributed as follows:—

British Columbia domestic demands over one-fifth of cut;
Prairie Provinces domestic demands over three-fifths of cut;
Other buyers in this order:—

Less than one-fifth of cut.	Africa
United States	China and Japan
Eastern Canada	South America
Australia and New Zealand	Europe

The leading features of the British Columbia situation are:—

1. The provincial forests will support in perpetuity a cut 4-5 times as great as the present annual cut.
2. The merchantable woods exist in great quantities, and are suitable for practically all important uses.
3. There is money invested, camps and mills erected ready to take advantage of markets.

Briefly, the causes of lack of trade with the timber importing sections of the Empire are:—

1. Lack of information about British Columbia timbers.
2. Freight rates and transportation difficulties.
3. British Columbia mills, while numerous and of large aggregate capacity, are not built and located so as to handle a large cargo trade. They are built chiefly with an eye to the railroad trade.

Prompt annual statistics showing the quantities of different forest products produced, and their value, are necessary. Such statistics wili henceforth be gathered by the Provincial Forest Branch, which, because of its close contact with the industry, is in a position to get complete and accurate information. These statistics will be compiled for the calendar year.

A survey of the forest resources of the Province is in progress. This will form the basis of statistical information on the amount of timber available.

Periodical exhibitions, including timber, in the United Kingdom and Dominions would undoubtedly help the timber trade. Advantage could be taken of such exhibitions to show the variety, qualities and uses of British Columbia timber in such a manner as to appeal to engineers, builders and manufacturers.

A permanent exhibition in London would serve the same purpose.

Who Can Give Us the Right Answer?

Editor Canada Lumberman: Grand Forks, B.C., July 7.

I would like to have the views of your readers upon the following:

There is always something wrong with the lumber business. It is no reflection on the lumbermen for they are always ready to admit it. Why is it?

When trade begins to develop the lumberman is like a man arising from a bent pin; he ships a few cars and wires his salesmen to grab everything in sight, or he writes to his customers and asks them to buy his finish lumber for kindling prices.

Have the lumbermen lost their balance wheels?

Let them stop and think (if it will not hurt too much) and consider what it would mean to the trade if everyone were to stop trying to sell lumber. The same quality of lumber would be used and a profitable price obtained for it.

THE WAY TO SELL LUMBER IS NOT TO TRY TO SELL IT AT ALL.

Will some millionaire lumberman (if there are any) appoint a missionary, wise and gifted, to visit the sales managers of the largest mills, impressing on them, for the sake of the entire trade of the Dominion of Canada, this fact:

THE WAY TO SELL LUMBER IS NOT TO TRY TO SELL IT AT ALL.

This is the cornerstone, and if all salesmen were educated along this line it would mean a short and sure road to success. The scheme will work. Let everyone try it for six months.

My advice to all lumbermen and the policy of our company is reflected in the following short phrase:

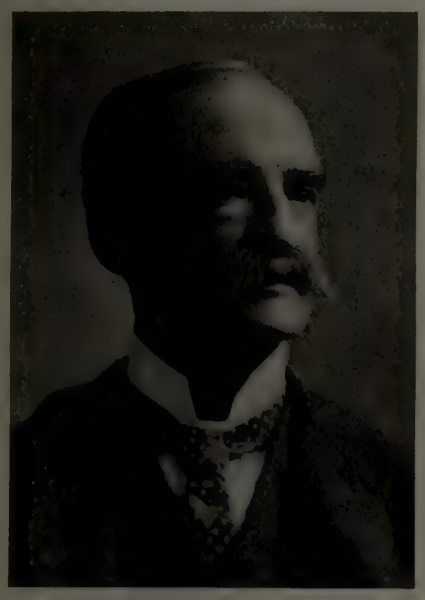
QUIT TRYING TO SELL IF YOU WANT TO DO BUSINESS.—W. Mark DeCew, Vice-President and Manager, Western Pine Lumber Company, Limited

Recent B. C. Timber Sales

Several timber sales were completed during the month of June. W. C. Palmer, Lund, B.C., purchased timber in the New Westminster district as follows:—494,000 ft. of Douglas fir at $1 per M. ft.; 20,000 ft. of hemlock at 50c per M. ft.; 250,000 ft. of cedar at $1 per M. ft.; total price, $1,234.40. J. A. Waters, c/o Vancouver Timber & Trading Company, Vancouver, B.C., bought timber in district "R.I. coast" amounting to 300,000 ft., with the right to cut all the merchantable timber, at $1 per M. ft.; total price, $520.75. Michael Crane, Victoria, B.C., bought timber in the Sayward district as follows:—1,589,000 ft. of Douglas fir at $1 per M. ft.; 734,000 ft. of cedar at $1 per M. ft.; 489,000 ft. of hemlock at 50c per M. ft.; 150,000 ft. of spruce at $1 per M. ft.; 17,000 ft. of white pine at $1 per M. ft.; total price, $4,510.05. Each of the above purchases was subject to the royalty of 50c per M. feet in addition to the price paid.

A Pulpwood Export Pioneer

Mr. A. J. Auger, of the wholesale lumber and timber firm of Auger & Son, Quebec, is a pioneer in the export of pulpwood to the United States. Naturally there were many initial difficulties to overcome, but the enormous trade in this product shows that there was a valuable opening for the Canadian wood. Mr. Auger has been in the lumber business all his life. He was born in 1841. After leaving school he was employed as an accountant with a lumber firm. Later he was engaged in the management of driving operations to the port



A. J. Auger, Quebec

A. G. Auger, Quebec

of Quebec, the timber being required for export to European and American markets. From 1886 to 1874 Mr. Auger was engaged in business in Montreal. In the latter year he removed to Quebec, where he has since conducted a wholesale business, chiefly in the way of export. The firm also make a specialty of railway ties, pulp wood, and cedar poles. Notwithstanding his advanced years, he still leads an active life.

Mr. A. G. Auger, son of the principal partner, has been associated with the business from an early age. He has been especially interested in investigating fresh markets for Canadian lumber, and has done much towards extending the operations of the firm.

Sorting the Ottawa Drives

For generations the Ottawa has been the foremost lumbering stream in Canada, and still the men who work on the sorting booms in the river above the falls of the Chaudiere, where are situated the biggest of the Ottawa's many mills, say that the drives of logs passing through their "gaps" are as large to-day as ever. Thomas Gillespie, for example, who has been boss of the sorting gang at Thompson's Bay for 35 years, says he doesn't see much difference in the number of logs in the river these days, however much difference there may be in the size of them. He is a veteran of the time when the square timber rafts sailed the Ottawa in the full tide of their glory. There are no more timber rafts now. The last timber crib has shot the slides at the Chaudiere.

Most of the logs that they make now would not have been considered worth taking out of the woods in the good old "timber" days. But such as they are, they keep on coming—pine, spruce, tamarac, pulp. The Ottawa is full of logs, from the head waters above Temiskaming right down to the lower river below the falls. Nor does one summer see all these Ottawa drives through to the mills. It takes two or three years for some of the drives to get down. In fact, certain firms, like J. R. Booth, have continuous processions of logs afloat, all the time, some of the pieces having been on the way to the mill for years.

From some far creek away up on the Hudson Bay Height o' Land, where they were dumped on the ice originally one spring, down through all the ramifications of the tributary streams, little and big, until finally the "grand" river was reached, the journey for some of these water-worn, rock-peeled logs, has been a rough succession of rapids and tumbling waters, and ice and drifting snow. In the spring they would move out of their winter quarters with the high water and travel another stage of their journey. At a rapids late in summer it might happen some of these brothers from the distant pinery would be stranded on the shallow rocks and hung up again for another winter. In some cases the Ottawa "sweep" comes along and picks off such laggards, sending them on down the current. But some they miss, and it is said that though Hon. George H. Perley has been out of the lumber business for years it is not uncommon for Perley's logs to be found in the sorting gaps even yet. As for the logs that sink, drift into blind channels, get chopped up for firewood by the habitants of the Ottawa Valley, or lost, in one way and another in the great river—who knows? Certainly not Thomas Gillespie, the boss of the sorting gang at Thompson's Bay.

"Lord only knows," says he.

Out in the middle of the wide current of the Ottawa stands a two-storeyed house on a crib some four or five feet above the water which its varandah overhangs. Around the house spread out fields of floating logs like a farm. Paths run across the expanse, and booms are stretched across like fences. Every morning the men go off to work, their pike poles over their shoulders, marching these floating paths in the middle of the river. Two logs strapped together with pieces of scantling and faced with a couple of planks form these river sidewalks, but they are only the main roads, for the men take to the boom timbers at times, or, if need be, they walk the loose logs without hesihesitation. Their boots are caulked with half-inch spikes. One steps on a log and it does not roll; it sinks, maybe, if it is a small one, but the river man steps on to the next one before his foot goes down.

All these logs above here have been floating since last year. They were liberated by the spring thaw and have come down from Lake Dechenes and the rapids. This year's logs won't be at the sorting gaps for a while yet. A boom stretches across the river holding back these old logs until they have been sorted according to the brands of their owners. This is the work of the sorting gangs, and the purpose of the sorting "gaps." There are several places where the logs in the Ottawa are sorted—in fact once they strike the main river they are sorted at almost every stage of their journey, each mill taking its quota from out the mass as it passes. The work of sorting and of keeping the drives in the main river moving is undertaken by the Upper Ottawa Improvement Company, composed of various owners of logs in the Ottawa, who associate themselves to drive co-operatively instead of as individuals, thus saving an enormous amount of expense. They build the slides at the falls and rapids, manage the booms, and sort the logs according to the brands and the species of timber.

The "sorting gap" is simply a gap in the boom which holds back the "jam" a gap of some fifty feet across. It is bridged some two feet above the water by three long planks. A little lower down another bridge goes across the gap, and the channel between these two bridges is boomed off like a roadway. All the logs to be sorted have to come through this narrow channel under the two bridges. On each of these bridges three men stand with pike poles. Men are stationed above to send the logs into the gap, and they have to be men active on the "loose," for they cannot do their work and stay on the solid boom.—S. H. Howard in the Toronto Star Weekly.

Opening Up Quebec's Pulpwood Areas

Sir Lomer Gouin, Premier of Quebec, who returned recently from a tour of inspection of the Abitibi region in Northwestern Quebec, is enthusiastic about the prospects of the region. He says that settlers are rapidly taking up the land on either side of the National Transcontinental Railway, and that the land, when cleared, is equal to the finest Manitoba lands for agricultural purposes. This land is all within the Clay Belt, and is covered with timber. It is expected that, as a result of the rapid settlement, large quantities of pulpwood will be put upon the market to be brought out when the railway starts operation next fall. Sir Lomer anticipates the establishment of large pulp and paper industries in this country, as pulpwood and water powers abound. It will be recalled that the Quebec government has decided to sell by auction, on August 11 and October 20, permits to cut timber on over 8,000 square miles of Crown lands in the districts opened up by the National Transcontinental Railway. The limits comprise 1,200 square miles in the basins of the rivers Ottawa, Harricana and Bell, in the Abitibi region; 6,000 square miles in the Lake St. John northern region; 350 square miles in the Lake St. John East agency; and 240 square miles in the Matapedia division.

Quebec Cullers' Report

The following comparative statement of timber, etc., measured and culled is furnished by the Supervisor of Cullers' office, Quebec, under date of July 9th.—

	1912. Cu. Ft.	1913. Cu. Ft.	1914. Cu. Ft.
Waney white pine	227,280	121,400	384,240
White pine	80	40	.....
Red pine	1,320	680	.....
Oak ... ..., ...	10,000	47,680	184 320
Elm	200,520	163,920	253,200
Ash	120	840	600
Birch and maple	38,640	47,680	50,800

Mr. R. H. Campbell, Dominion Superintendent of Forestry is making a study of afforestation methods in Sweden and German

Thinks the Wholesaler is Unduly Alarmed

Editor Canada Lumberman: Udney, Ont., July 11.

In this vicinity the demand for lumber is as good as last year. The reason, I believe, is that most of our customers are farmers, and farmers do not shut off their outlay on improvements as suddenly as mercantile men in the event of money stringency.

The wholesale buyers seem to be frightened to invest in lumber stock and we have some stock left on our lands with the cash deposit from the wholesaler, which we have since sold at retail quite readily at the usual price.

It is my intention to get out all the lumber stock I can during the coming winter and I feel sure there will be very little, or no discount on the present and past values of lumber.—H. Oliver.

New Bishop's Crossing Mill Under Way

Editor Canada Lumberman: Bishop's Crossing, P.Q., July 13.

Owing to the very slack trade in lumber, especially in hardwoods throughout this section, our plans have been considerably retarded and somewhat altered for the present season. As we put in no logs last winter we were not obliged to rush rebuilding. We have the main building well under way however, and will expect to have the sawmill in order for the winter operations, providing the trade conditions and the money market show some improvement.—J. O. Gilbert & Son.

Business Better Than Ever Before

Editor Canada Lumberman: Tweed, Ont., July 11.

We have no reason to complain of lack of business. Nineteen hundred and thirteen was our best year, and business this year is running about 10 per cent better than last year. Our greatest difficulty is to get experienced men to get out the work, although unskilled labour is a little more plentiful than usual. In this district all lines of business are in a very prosperous condition.—The Houston Company, Limited.

Nova Scotia Trade Contiuues Quiet

Editor Canada Lumberman: Bridgewater, N.S., July 14.

We are still running about as usual. Our cut will probably reach about forty or fifty million feet this year, and we have our troubles the same as the balance of the lumbermen. Conditions are quiet and prices are low. We are, however, pretty well sold up for the year, and do not expect to have much surplus stock to carry over—Davison Lumber Company.

Panama Canal May Open German Market

The opportunity for opening and developing a trade in Canadian lumber in Holland and the principal Rhine cities supplied through the port of Rotterdam has recently been the subject of investigation. A large number of importers have been called upon and their views ascertained. It is the general consensus of opinion that until a lower freight rate obtains a competition in Oregon pine (Douglas fir) with the pitch pine and Carolina pine of the Southern States will be difficult. With the opening of the Panama canal however, importers look forward to a decrease in freights, and anticipate a considerable increase in the importation of lumber from the western coast of the continent of America.

Mannheim is the largest lumber market in the Rhine provinces, and supplies practically the whole of Southern Germany. The largest lumber importers advised that Oregon pine is used for windows, doors, flooring, and furniture.

Dimensions for flooring are as follows: Rift cut, 1-inch x 4 inches, 1¼ inches x 4 inches, 1½ inches x 4 inches; width, 5 inches to 12 inches; length, 12 feet and upwards.

Dimensions for carpenters' purposes are as follows: One inch, 1¼ inches, 1½ inches, 1¾ inches, etc., to 3 inches; width, 10 inches and upwards; lengths, 12 feet and upwards.

Dimensions for furniture are as follows: One inch to 3 inches thick; width, 9 inches to 10 inches and upwards. It is at present too expensive in comparison with pitch pine and red pine imported from the Southern States ,and for the past two years only small quantities have been received. Pitch pine flooring is at present quoted £18 per standard; pitch pine sap rifts, £16 per standard c.i.f. Rotterdam. If Douglas fir, rift cut, can be laid down at £15 to £16 c.i.f. Rotterdam, it will compete successfully. The usual terms are cash against documents 2 per cent discount, or 75 per cent against documents and 25 per cent after arrival.

Firms in Seattle, Tacoma and Portland are at present quoting prices in this market, but all firms interviewed state that they will be pleased to receive quotations from Canadian exporters.

One firm is anxious to receive samples of cedar, and also prices for the following dimensions: Cedar, square hewn, minimum 16 inches x 16 inches; length, 12 feet to 30 feet or 40 feet; average length about 20 feet. Free of knots and sound.

B. C. Forest Branch Revenue

The total amount of forest revenue in British Columbia for the month of June, 1914, was $157,919.19 made up as follows:—

Timber licence fees	$112,034.10	
Timber licence transfer fees	1,510.00	
Timber licence penalty fees	555.00	
Timber lease rentals	6,550.65	
Timber lease transfer fees	10.00	
Timber royalty	27,228.31	
Timber tax	4,238.35	
Timber bonus	1,675.45	
Scaling fees	2,317.44	
Scaling expenses	168.23	
Trespass and penalties	73.90	
Timber sales rentals	260.29	
Scalers examination fees	70.00	
Handloggers licence fees	975.00	
Timber mark fees	48.00	
Copies of documents	29.00	
Timber sales advertising	69.50	
Timber sales cruising	100.00	
Exchange	5.97	
		$157,919.19
Collections for the forest protection fund from timber licences, lessees, etc.	11,999.59	
Contributed by Provincial Government	11,999.59	
		23,999.18
Forest protection expenditure during month of June, 1914, was		25,665.58

The quantities of timber scaled and exported during June, 1914, were as follows:—

District	Sawlogs No. of Feet B. M.	Piles and Poles No. of Lineal Feet	Rly. Ties, Shingle Bolts and Cordwood No. of Cords.
Vancouver	51,445,242	170,884	3,783.01
Vancouver, exported	3,870,603	90,100	.....
Island	12,197,638	101,766	1,732.00
Island, exported	351,726	90,420	.....
Kamloops	1,815,747	89,119	1,219.16
Cranbrook	12,570,972	189,020	7,803.47
Nelson	7,494,854	257,115	1,986.43
Vernon	4,459,287	8,770	726.60
Prince Rupert	4,000	9,807	.....
Lillooet	59,383	4,195	12.50
S. Fort George	2,027,948	17,655	856.36
Hazelton	449,000	16,470	5.50
Tete Jaune Cache	.....	.....	1,217.50
Total scaled all districts	92,524,071	864,761	19,342.53
Total exported all dist.	4,222,329	180,520	.....

Flood Damages New Brunswick Mill

A remarkable cloudburst, followed by an enormous flood, did damage on July 18th in Kings County, N.B., the principal loss being in the valley of the Millstream, down which the enormous flood swept, tearing away bridges, piers, booms, etc. The damage is estimated at more than $300,000. The flood tore away 1,250,000 feet of logs, which were in booms at Jones Brothers' Mill, Apohaqui. Jones Brothers are the heaviest losers. Their logs were scattered along the banks of the river and the end of their mill was badly damaged. Later reports state that Jones Brothers have recovered 600,000 feet of their logs, and will be able to keep their mill running during the summer, as the remainder of the logs will be secured, although at a heavy expense.

Crews are at work repairing the damage to the mill and assembling the drift logs which are scattered for seven miles along the river as far as Norton, where a jam occurred. New slips are being built at the mill, and a boom has been swung from the broken parts of the old log guards. Never before in the history of the district has such a disastrous flood occurred. The meadows along the Millstream were covered by water to a depth of four feet, and in two and one-half hours the water had swelled to ten feet above the normal surface of the stream. The total freshet rise was twenty feet in five hours. A rapid fall of water has been going on since the storm ceased, and conditions are now almost normal.

Honors for R. H. Campbell

Honorary membership in the Royal Scottish Arboricultural Society was conferred upon the foreign and Colonial delegates attending the Diamond Jubilee Conference of the society at Edinburgh recently. Among those honored was Mr. R. H. Campbell, Director of Forestry for Canada. Mr. Campbell, in replying, referred to the keen sympathy which the Canadian Government had displayed in regard to forestry work throughout the Dominion.

Experienced Shingle Men Form New Company

In a recent issue reference was made to the fact that the Port Haney shingle plant had passed into the hands of new men, and would be operated in future as the Barclay Shingle Mills, Limited. J. A. McKercher, Vancouver, a well-known lumberman, controls a one-quarter interest in the new company and associated with him are W. J. Barclay and Thos. Paradis. Mr. McKercher has been connected with the lumber and shingle business at the coast for a number of years, having been manager of a large plant on False Creek until its destruction by fire. He then organized the Nanoose Bay Lumber & Shingle Mills on Vancouver Island, which plant was disposed of about a year and a half ago to an English syndicate, who are now operating as the Newcastle Lumber Mills, Limited. Mr. Barclay has been connected with the lumber industry on the Coast for the past twenty years as expert filer and mill superintendent. Mr. Paradis was office manager for Mr. McKercher, and has a thorough grasp of the shingle business in all its details. The capacity of the company's plant is now being increased to 200,000 shingles per day, and negotiations are under way for the purchase of a second plant, to be carried into eeffct as soon as an adequate supply of timber for both plants has been secured. The Haney mill is now operating to full capacity, the superior grades of shingles turned out finding a market in Ontario and on the prairies. The adertisement of the company appears elsewhere in this issue.

The New Bathurst Sulphite Mill

Preparations for the erection of the proposed sulphite and board mill of the Bathurst Lumber Company, are going rapidly forward under the direction of Mr. A. G. McIntyre. This mill will be built of concrete and steel, and will manufacture 25 tons per day of bleached Mitscherlich sulphite pulp, and 60 tons per day of steamed container board. This mill will later be enlarged to a news and ground wood mill. It is located at the mouth of the Nepisiguit River, on Bathurst Harbor, N.B., and has railway and ocean connections. The company owns 2,800 square miles of timber lands attributary to the mill, and has the best storage ground for logs, in Bathurst Harbor, on this continent. The wood cut on these limits, is at least 80 per cent black spruce, which is the best paper making fibre there is. The small wood will be used in the pulp mill, the large logs will be sawn at the company's two saw mills on Bathurst Harbor, which are sawing 250,000 feet of lumber per day. It is expected that the mill will be in operation some time next summer, about July or August.

B. C. Having Few Forest Fires

Mr. H. R. MacMillan, chief forester for British Columbia, reports that only a few small and unimportant fires have as yet occurred as a result of the dry hot weather. If this weather continues however, he fears, that serious conflagrations will develop. The rangers in the various districts of British Columbia this year are better equipped than ever before for such emergencies and hope, with the cooperation of settlers, that there will be few, if any, disastrous fires this summer. During the first week in July a number of small fires were reported. The largest were at Natal and South of Jaffray, B.C. In the former case the fire was extinguished without damage to any timber, after a hard fight. For a time, it looked as though the limits belonging to the Wilson Creek Lumber Company would be damaged. The fire at Jaffray extended over 300 acres of slash from logging operations on the east bank of the Kootenay River. This fire was got under control before any damage was done to the timber. A set of logging camps which had been abandoned was destroyed.

Lumbering Conditions in June

The Dominion Labor Gazette in its issue for July 1st, reports as follows:—"Lumbering operations on the whole were fairly brisk. Nova Scotia reported a successful logging season, and all lumber was brought safely to the mills. In New Brunswick also mills were working steadily with large crews. In some parts of Quebec and Ontario, owing to low water, many logs were left behind, not only in the small streams but on some of the larger rivers as well. In spite of the fact that the last winter was a favorable one for logging and larger quantities than usual were taken out, it was expected that the number of logs likely to be left in the woods and the prospect of a reduction in the sawing season would have a tendency to increase the prices of lumber, the demand for which, particularly in the cities, was greatly improved."

Handling Architects' Specifications

Architectural specifications, either of the individual architect or accompanying plans that are gotten out wholesale from architects' drawings and specifications, are becoming an important factor in planing mill work, and sometimes one feels inclined to regard them as a sort of mixed blessing. There is no question but they are a step forward and make for individuality and new ideas and improvements in home-building, but the carrying out of architectural specifications to a great length of detail is in some measure the same as adopting system and carrying it out to the points of entangling red tape. It does not leave anything for the judgment to exercise itself upon, and tends in a way toward neglecting, through inactivity, those faculties of the workman which make him comprehend his work as a whole, and, through this comprehension, use his best judgment to get proper results. In other words, it is something like a factory where the work has been systematized and each man simply does a given part of the work and concentrates his interests on that part, by means of which he becomes more or less a stranger to the work assembled as a whole. He acquires accuracy and capacity thorugh this means, but loses a grasp and comprehension of the work when grouped together, that is a loss hard to make up for.

However, what is specifically in mind now concerning handling architects' specifications, is not so much a discourse on the folly of carrying them to extremes as to point out some of the stumbling blocks a planing mill man may fall over if he is not careful. The majority of contracts for work involving architects' specifications have a clause setting forth that anything which shows in the blue-prints, but is not named in the specifications is to go in just the same. On the other hand, if the designer neglects to show something in the blue-prints, but it is included in the written specifications, it becomes a part of the contract. So a man must scan very carefully not only the plans in detail, but also the specifications, to see if there are some items on one that do not show on the other.

There is an instance in mind now where it cost a planing mill man about $50 on a job because a certain feature of the work did not show in the blue-prints, but was set forth in the specifications, and was overlooked. Now, if this man had been given the contract for the structure in question, he would have pictured the whole job complete in his own mind when figuring on it, but when working from the architects' specifications it got to be a matter more of narrow mechanical figuring than of broad thinking, and the estimate was made and the work done from the things visible in the blue-prints themselves, without giving any thought to what might have been left off. There is many a job in which it would probably be better for the planing mill man with a shop of any great extent to supply plans and specifications out of his own drafting room equipment, rather than follow carefully some of the immaterial details of special plans brought in at times to work from.

This is a matter that is in a peculiar stage of development right now, and it is a little difficult to see just what the future will bring—whether there will be an extension of architectural work in connection with planing mills themselves, or whether they will take to letting all the designing and specifying entirely to architects.

Concatenation of Hoo-Hoo to be Held at Toronto

R. M. Webb, Vicegerent Snark for Eastern Canada, is making arrangements for holding a concatenation of Hoo-Hoo at Toronto about the end of August. He is receiving enthusiastic assistance from Toronto members, and expects to break a few records and bring off a big event. All Hoo-Hoo in Eastern Canada should join in making this a fine concatenation. Coming just before the annual meeting of the order at Winnipeg, it should result in stirring up interest in the latter important event.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

616. **Douglas fir.**—Responsible lumber importer in Cologne will be pleased to receive samples with the idea of opening up a connection with Canada.

619. **Douglas fir.**—A Mannheim importing house wishes to receive samples and prices, delivered c.i.f. Rotterdam.

621. **Douglas fir, British Columbia cedar.**—Quotations for the above with samples are desired by a Mannheim importing house.

622. **Douglas fir, British Columbia cedar,hemlock.**—A reliable Mannheim importer wishes to enter into correspondence with Canadian exporters of above.

623. **Douglas fir, redwood, hemlock.**—A Mannheim importing firm is prepared to receive samples and quotations from Canadian exporters.

624. **Douglas fir, red pine, spruce, cedar.**—A Mannheim importer wishes to enter into correspondence with Canadian exporters of above woods.

626. **Douglas fir and British Columbia cedar.**—A large importing house in Dusseldorf desires samples and quotations.

628. **Oregon pine and British Columbia cedar.**—A Dusseldorf importing house solicits correspondence in connection with above.

630. **Douglas fir, spruce, hemlock, cedar.**—An importing house in Dusseldorf is prepared to enter into correspondence with Canadian exporters.

656. **Box shooks.**—A South African importer asks for f.o.b. quotations on Canadian-made Box shooks.

657. **Pine doors.**—Inquiry is made by a South African importer for quotations on Canadian pine doors.

658. **Lumber, planed and grooved.**—A South African firm asks for quotations on Canadian lumber, planed and grooved.

Closer Utilization of Timber Products

Losses Which Occur in the Various Stages of Converting Timber Into Lumber—Suggestions of Ways for Reducing the Waste

By R. C. Bryant*

CLOSER utilization of the raw products of the forest is becoming more evident each year, although in all sections there are operators who still ignore the profits which may be made from material they now waste. As in the meat industry in the early days, the only product saved was the beef and hide, so in the lumber business to-day the majority of the loggers and manufacturers take only the standard length lumber and to a large extent fail to utilize the various by-products such as "shorts," sawdust, slabs, etc.

Although there has been much unjust criticism of lumbermen because of the methods they have employed in harvesting their timber, it is true that large quantities of raw material have either been left in the forest to rot, to furnish fuel for forest fires, or have been burned in the incinerator at the mill. However, in nearly every case where this has been true, the chief reason could be found in the low prices obtained for the manufactured material. For years knotty, defective and small trees could not be made into lumber and sold at a profit. Lumbermen, as a rule, are as keenly alive to their interests as men engaged in any other industry and it is folly to assume that they would wilfully neglect an apportunity to manufacture lumber that could be marketed at a profit, especially since much of the material that was left behind in the forest or was burned at the mill had to be handled in some way before it was abandoned. During the early years good material was used for the construction of roads, skidways, camps and like purposes when inferior timber was available, but the logger preferred the choice timber, since it was both cheap and could be worked to better advantage.

A recent writer has charged present-day lumbermen with gross waste, claiming that more than 50 per cent of the raw product is wasted during the progress of logging and manufacture. Such statements are misleading to those not fully acquainted with conditions. The author of the article undoubtedly misinterpreted the figures he quoted, which appear to have been taken from a publication of the Forest Service. These figures are not based on the merchantable content of the tree but upon the total content, including bark, stump and limbs, all of which, with certain exceptions, are not merchantable. In addition the amount of necessary waste is increased by the loss of wood due to sawdust, slabs or defects which render the affected portions of the bole of little or no value.

Loss in Forest and At Plant

The actual loss of the raw product occurs both in the forest and at the manufacturing plant. In the forest it has been estimated to be as high as 25 per cent, although it is constantly being reduced by improved methods of operation and higher market values for the low-grade product.

The chief wastes in the forest have been, and are, due to the cutting of high stumps; the careless cutting of the bole into logs, both as regards length, crook and defects; leaving merchantable timber in tops, logs and standing trees; breakage in felling; and loss in transport, especially in log driving.

Stumps are now being cut at a reasonable height on most operations. There is still insufficient attention paid to securing both quantity and quality from the felled timber. The serious losses which often occur in cutting crooked logs, in breaking timber in felling, and in leaving an excessive amount of timber in the tops could be largely remedied by proper supervision. However, timber may be perfectly sound and yet be so knotty that it cannot be brought out as a profit, due to market conditions. As a rule, however, it is possible to secure more merchantable timber from the tops than is usually taken.

Saw Mills on Flat Cars

The author firmly believes the time will come in the near future, in those sections of the country where logs are brought from the forest to the mill by rail, when it will be possible to install small portable saw mill plants on flat cars which can be taken to the forest and there used for sawing very crooked logs and knotty tops into material suitable for novelty and similar work. The coarse material, very crooked logs and broken boles can be cut into short lengths, four feet or more long, and corded up along the railroad track after the regular logging crew has removed the saw timber destined for the large mill. The small mill can then be taken to the site where the timber is stacked, the logs elevated by power onto the car, and sawed into lumber. This material would furnish large quantities of narrow widths and short lengths of choice stock, provided the large knots were removed.

One reason why operators have failed to handle knotty logs in the main saw mill has been the low sale value of the product, coupled with the high cost of manufacture incident to their utilization. The knots on rough logs are tough and dull the saw teeth quickly, so that the timber must be fed against the saw at a slower speed than logs without knots—this means increased cost of manufacture—and further when clear logs are placed on the carriage the saw is not in condition to manufacture good lumber. This effect could be obviated by providing special equipment for sawing defective, crooked and knotty logs. In this way the main saws will make a greater cut and produce lumber of better grade and the product from the poorer logs can be handled by less skilled labor without, in any way, reducing the output of the mill.

Reasons for Utilization

There are several reasons why it is advisable to utilize this rough material. When left in the forest it not only makes an effective fire trap, which is a menace to the remainder of the property, but it also provides a breeding place for insects and fungi. The increased amount of timber secured per acre and the greater tonnage hauled per mile on the logging railroad helps to cut down the logging expense per thousand board feet. It also postpones the time when the tract will be cut over. Since utilization is becoming more intensive each year and lumber of higher value, it is self-evident that it is advisable to postpone the closing of the plant to the latest date possible.

A further use for the rough material usually left in the forest is in the manufacture of certain oils which are secured by destructive distillation. In some of the Norway pine forests of the North and the long-leaf forests of the South, it has been found profitable to distill stumps and in some cases the larger wood in the tops. The expense of bringing the raw material to the distillation plant has not yet given this scheme wide application.

Waste at the Plant

The raw material wasted around the manufacturing plant consists of sawdust, exclusive of that part utilized for fuel; edgings; slabs; and short length lumber, including trimmings from the saw mill and the planing mill.

Around most large saw mill plants the greater part of the sawdust is required for fuel in the power house, hence the loss is not great. However, in plants where circular saws are used instead of band saws, the per cent of the log that is converted into sawdust is greater than is necessary and the operator suffers a loss from this cause. In large mills there are few cases where an operator is warranted in continuing the use of circular saws, for by so doing he is not only wasting material, but likewise is reducing the output he should secure from a given number of logs. Near large centres of population, saw mills are often able to sell surplus sawdust to ice companies for packing ice, and to certain classes of merchants to cover the floors of their places of business. It is reported that it has been pressed, successfully, into sticks and used for fuel, retailing for $9 per ton. Aside from the above uses it is distilled in retorts and various products, chiefly alcohol, extracted; in a fine form it is used in the manufacture of dynamite and also linoleum. The uses for sawdust are increasing and in the near future plants favorably located will undoubtedly have no surplus product of this character to destroy in a burner.

The waste in slabs is due to several causes, among which are crooked logs and those with a large swell on one end; also heavy slabbing on the part of the sawyer. It is seldom desirable to bring a very crooked log into a mill since the loss in slabbing is usually heavy and the output for the mill crew is reduced because of the difficulty of handling crooked logs on the mill deck and the loss of timber in squaring up the stick. Where special attention is not given to sawing, sawyers frequently slab heavily in order to secure a merchantable board the full length of the log when the second cut is made. If all logs were perfect cylinders this loss would not be great. Since most logs are larger at one end than at the other—and often the difference is quite marked—the slabs on the large end of the log will usually contain material that would produce several short boards of merchantable width and length. This waste can be greatly reduced by having the pond men send all sound logs to the deck, large end first. If the management then insists on the sawyers cutting thin slabs, the maximum amount of lumber can be secured. This is especially true where long timbers are cut. A test made in a Southern pine "timber" mill showed an increase of 5 per cent in the output when this system was used. Placing the butt end of the log on the forward part of the carriage is also an aid to the sawyer, since he can see shake, rot and other defects which are of more frequent occurrence on the butt end than on the top end of the log. There are certain mechanical advantages possessed by this method which tend to increase the cut of the mill. Where the small end of the log is placed near the sawyer, the carriage must make a run the full length of the log in

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order to remove the slab, while where the large end is placed nearest the sawyer a short carriage run only is needed until the log is slabbed down so that the saw cuts for the entire length of the log. Whlie this saving of time is not so apparent in a slow speed mill it adds materially to the day's cut where the mill is run at high speed. It is seldom desirable to place the small end of the log on the forward part of the carriage unless that end, only, is defective.

Loss in Edging

The waste in edging lumber varies greatly in different mills, since it depends largely on the watchfulness and interest displayed by the manager, and on the skill of the edgeman himself. Two forms of waste are frequent in edging. One is due chiefly to carelessness on the part of the workman who fails to set his saws properly to secure the maximum width possible and who in consequence may waste clear material on one or both sides of the board. A second form of waste is due to the trade requirements which demands even-inch widths in boards. Custom has decreed that lumber shall be cut in even widths and this often entails a sacrifice of an inch of lumber on a given board. In time this waste is certain to be eliminated, and also the requirement that all lumber shall be cut in even lengths. A third and also a common form of waste is seen in many mills, especially in the yellow pine region of the South, where large quantities of quarter-sawed flooring are manufactured. Unless flooring is a specialty with the mill, and it often is not, the stock for manufacturing this kind or product, made in 3 and 4-inch widths, is secured by ripping, on the edger, quarter-sawed strips from wide boards. These boards often have clear stock on one or both edges, and are knotty in the centre or possibly on one edge. Since quarter-sawed flooring is worth several dollars more per thousand board feet than No. 1 common boards from which they are usually ripped, it is very desirable that all of them shall be saved. Unless the edger-man is well posted on grades and values he will often leave flooring strips on wide boards and the operator suffers a distinct monetary loss. Since No. 1 common stock is usually air-dried and often becomes sap stained, strips can not later be secured to advantage, because of their reduced value, due to this defect. This loss in edging can be eliminated largely by employing edger-men who are expert graders and who are well posted on values. A distinct advantage would be gained by having a man at this work with whom the manager could talk over, intelligently, the question of values.

Distillation Plants

Where the daily output of lumber is large, some operators have found it practicable to encourage the establishment of destructive distillation plants and paper mills chiefly for the utilization of slabs and other mill refuse. This practice will increase in favor with large operators, during the next few years, when the methods have proven to be beyond the experimental stage.

A common form of waste is in short lumber. It is only a few years ago that the writer saw at a large southern mill, all lumber eight feet or less in length sent to the burner. Even now many southern mills do not save any lumber less than six feet in length. Many of the short length pieces come from side boards which are the result of squaring up the log, and hence are to a very large extent free from knots and will make lumber of the higher and highest grades. Material of this character is especially suitable for novelty work and indoor finish, such as wainscotting, etc. It can be worked into an endless number of patterns cut to the length required by the consumer. There is no reason, except possibly the slight additional labor charge for handling and re-manufacture, why such material should not be used by the carpenter or novelty manufacturer rather than purchasing long lengths and cutting them into shorter ones. This fact is now evident to many buyers and keen lumber salesmen find a market for more short lumber than their mill normally produces and the price is not far below that secured for standard lengths.

Demand for "Shorts"

A further source of "shorts" is from pieces secured while slabbing logs, and also from the ends of boards cut off at the trimmer and in the planing mill. These two sources yield short pieces which are in demand by novelty works. The sizes in which this material is marketed are extremely variable, owing to the multitude of purposes for which it is used. The following are some of the smaller sizes sold by one firm.

1-in. x 1⅜-in. x 6-in.
1-in. x 1-in. x 25-in.
1-in. x 3-in. x 22-in.
1-in. x 4-in. x 21-in.
1-in. x 6-in. x 12-in.
1-in. x 6-in. x 13-in.

All of these and a multitude of other widths and lengths can be made from material picked from the conveyor carrying refuse to the burner. While the sale value of "shorts" is not great the mill owner who sells them secures a satisfactory profit from material he otherwise would be forced to burn at a cost to himself.

The manufacture of shorts is still in an experimental stage, although the demand is good and is constantly increasing. Those millmen who now handle them often prepare them with machinery which has been cast off in some other department and which is not always as well adapted to the work as it might be. Further cheap labor is often employed in the "shorts" department and because of its inefficiency the best results are not always obtained. It is believed that the introduction of special machinery for handling shorts and the employment of more skilled labor would enhance the value of the product and also increase the amount of material secured. An undesirable feature of "shorts" manufacture is that the supply of raw material for lath is greatly reduced and a sufficient supply of them can not always be secured. The manufacturer, therefore, must choose between the two products.

There are several reasons why the manufacture of short material should appeal to the up-to-date manufacturer, among which are: (1) a small profit is made from material that otherwise must be burned at an actual monetary outlay; (2) an expenditure for power is seldom required since the main power plant can usually meet the light extra demand made on it. There is also a gain in efficiency since the same labor, supply and repair cost for power is distributed over a greater output; (3) the increase in the payroll usually means an increase in business at the company store.

Short length lumber from four to six feet long has been handled most successfully by those who have marketed it as a special product rather than by trying to sell it in combination with standard lengths. Shorter lengths are always sold under special contract.

Waste in Odd Lengths

A form of waste that has attracted much attention during the last few years is that of odd lengths. It has been the custom, for years, and still remains so, for manufacturers to place their product on the market in standard lengths, ranging from ten to twenty-four feet, in multiples of two feet. This practice grew up largely among the white pine trade and, apparently, was inaugurated to simplify lumber measurement. It has several advantages from the retailer's point of view, in that fewer lengths of lumber must be carried in stock to meet consumers' demands; hence a smaller stock and less shed room is demanded. It is well known, however, that if is very seldom that builders can use lumber in even lengths, it being necessary to cut some even length back to the odd length desired. It is perfectly feasible, therefore, to use odd lengths, and it would mean a large saving of valuable material at the manufacturing plant. It has not been possible, however, for the manufacturers to convince the buyers that odd lengths can be used to advantage and this waste still goes on as it has for years past. An estimate of the Forest Service places the loss of material due to the necessity of cutting Southern yellow pine to even lengths at 1.21 per cent of the total cut, a large waste in the aggregate, when we consider that the lumber cut in 1911 was nearly 13,000,000,000 board feet. The waste in odd lengths occurs chiefly at the trimmer in the saw mill, where defects on the ends of boards could often be removed by cutting off one foot only and in the planing mill where a similar difficulty is encountered.

The Machine Sanding of Various Woods

It is a far cry back to the days when sanding was done by hand and it is not the intention to consider that phase, or any of the minor intervening phases, in this article. Here will be considered the use of sanding material used with good results in putting work through the modern single-surfacing or double-surfacing sanding machines. Less than three decades ago, cherry, walnut, and mahogany were in extremely popular demand, particularly in desk work and cabinetmaking. The ever-growing scarcity of these woods, causing an increase in price, has swung the demand to the substantial oak. Still there is, and probably always will be, more or less of a call for the former woods.

Cherry and mahogany are difficult woods to sand on a roll-feed sander. There seems to be something in the nature of these woods that shows out every scratch, dent and feed mark of the sanding machine, so in working this kind of material the operator must be sure that he has his adjustments made to a hair, so to speak. It is not fair to blame poor work to the sandpaper when in reality the fault is elsewhere.

Too fine a grit is not good for a finishing paper, because cherry and walnut cut very easily on a sanding machine, as also do most grades of mahogany, including the San Domingo, Cuba, African, and South American mahoganies, baywood and Spanish cedar. The last two woods are used exclusively in place of mahogany, having much the same grain and figure.

On the finishing drum, practical work has proven that No. 00 in a garnet will give the best results. In sanding cherry and walnut, care should be taken to always have the fine paper absolutely sharp. On most grades of mahogany it is possible to use a somewhat dull paper, although the hard San Domingo mahogany needs a sharp paper to sand it perfectly.

Garnet paper has been found superior to flint, and the best combination on a three-drum sander is 1½, 1, ½, or 1, ½, 00. On some

work garnet paper is used to advantage in the combination of 2, 1, ½, but this is a little coarse for doors or panel work, where the sanding is across the grain on style and muntins. In such cases a No. 00 paper should be used for the finish paper.

Sanding Soft Woods

Now consider some of the woods used for interior decoration. White pine, basswood, poplar, whitewood, elm, and butternut, cut very easily on the sander.

The woods are soft, and, after being kiln-dried, during sanding are apt to become "dusty." This dust will accumulate on the last out-feed roll, especially when a fine paper is used for finishing. Here is where a good brush gets in its work, not only in cleaning the stock after it has gone through the last paper roll but also in cleaning the bottom feed roll.

If the dust is allowed to accumulate, it mashes into the soft woods, and spoils the sanding. On these woods 00 garnet is good, or 0 is perhaps a better paper for finishing, particularly on straightgrain work.

When sanding hard pine, North Carolina pine, cypress, or some of the other sticky woods, we have material that tests the quality of the sandpaper, for the gum in the woods clogs the paper to a great extent. Here it is wise not to use too fine a grade of paper.

Maple and birch are hard on sandpaper, but being close-grained it is possible to give them a high polish with a comparatively coarse paper. When sanding such woods as Circassian and burl walnut, crotch mahogany, rosewood, gum, or some of the other fine cabinet woods with a very fancy figure and grain, and which is to have a fine polish, then is the time to get in good work with the fine grits of paper.

Just a word here. A fine grit is useless on a sand drum out of balance or not cutting absolutely the same from end to end and running true with a light pressure on the pressure roll. Some sanders can be so accurately adjusted and run so true that a good operator has no trouble in producing the finest work on the above-mentioned cabinet woods.

The most used of all woods is the ever-substantial, sturdy oak. Quarter-sawed oak is a hard wood to sand on a poor sander, but when put into a modern machine, with its contrivances for helping to make good work, it comes out at the rear end as smooth as velvet and fairly shining in splendor.

Characteristics of Oak

The characteristics of oak are somewhat different than most of the cabinet woods. It has a very open grain, and in quarter-sawed oak there is a hard and soft grain, as well as an open grain. The figure, or splash, which gives it character, is hard, and of course the remainder is comparatively soft. Too fine a sandpaper with a heavy pressure on the drum will eat into the soft and leave the hard, thus causing a wavy appearance.

Sometimes, in any kind of work, the paper on the machines gets clogged up with the dust before it is worn out. Frequently if a piece of hard wood is run through at a sharp angle it will clear the paper for further use.

Another trick comes in handy when the operator is crowded for time with a big pressure of work behind him, and cannot afford the time to change the sandpaper. Perhaps it is the case that the coverings have just been put on, when someone comes along with a gummy piece of work, maybe all covered with glue, and a hard spot or knot in it. The piece is run through to accommodate the workman, with the result that a streak is burned in the paper. It shows up black with the sand drum running, an annoying blemish.

If the sand has not been injured too much, the mark may be wiped out with a drop of oil from the squirt can, and the work in hand may be continued until the rush is over, or until it is necessary to change the sandpaper for the reason that it has done its duty.

As to the paper itself, it would seem that a book might be written on the different grades of papers that are put out by different manufacturers.

Differences of Numbers and Grades

One maker of sandpaper has a No. 1 that is almost as fine as a No. ½ of another, and the differences will be observed by the operator.

So it is really up to the man that is doing the work to decide what paper is best suited to the requirements of the operations he has in hand.

As to the qualities of flint and garnet papers, the latter is coming more and more into popular use, and wherever experimental tests have been made it has in almost every instance lasted longer and produced better results.

Lumber Camps Will Have Busy Winter

Representatives of several of the large lumber companies operating in the Upper Ottawa region report that operations in the bush this Fall will be unusually heavy, and that about 35,000 men will be employed about two months hence. This is expected to go a long way toward relieving unemployment in Eastern cities. The reason given for the extra lumbering operations is that a great deal of timber has been felled by storms and slightly damaged by bush fires, and that it must be utilized at once before decay sets in.

Southern Pine May Become a Pulpwood Factor

So much attention has recently been given to the increasing invasion of Canadian paper in the market of the United States that a recent address delivered by Mr. V. E. Nunez before the Louisiana Forestry Association, in which he dealt with the suitability of long-leaf pine as a raw material for paper-making, is of much interest. Mr. Nunez, who is in charge of the Research Department of Arthur D. Little, Inc., Boston, Mass., has made a very careful study of this subject. From his remarks, it appears very likely that the near future will see large pulp and paper mills erected in the long-leaf pine districts of the Southern States. "It is apparent," he said "that in order to prevent the wood pulp and paper industry of the United States from taking wings and flying over to Canada something must be done to provide new sources of raw material. There are two obvious ways of doing this. First—To make use of new woods—Second—To make more extensive use of fibrous waste and introduce new fibrous materials, aside from wood.

After discussing the necessary qualities of a fibrous material for paper making, Mr. Nunez said: "In the South, long-leaf pine is receiving a great deal of attention. This wood, which outranks all others in commercial and industrial value, is of course too valuable to be worked directly into paper, and it is only the waste of the logging and milling operations that the paper maker can hope to touch. The amount of this waste, however, is too vast to be readily conceived. The total cut of yellow pine in 1910 was 14 billion board feet. It is estimated that 60 per cent of the total wood in the tree is wasted in the woods and at the mill, so that the total waste wood amounted to 21 billion feet. This amount of wood is sufficient to make about 35,000 tons of paper a day, providing it could all be collected and used. The paper-maker, however, is forced to be somewhat nice in the selection of the wood that he uses. He cannot use red heart, punky or partially rotten wood, nor wood that is badly charred, nor wood that is excessively knotty. He cannot afford to handle very small pieces and he suffers some loss when removing the bark. We may safely assume that at least 10 per cent of the total waste is suitable and available for paper making purposes. On this basis, there is enough wood for the manufacture of 3,500 tons of paper every 24 hours. This would add about 25 per cent to the total production of paper in the United States.

"Long-leaf wood is well adapted for the manufacture of certain classes of paper. It is heavy; it possesses a strong, broad fibre averaging 4.28 millimeters in length, as compared with the fibre length of 2.8 mm. for spruce and 2.4 mm. for hemlock. The yield of pulp per unit weight compares favorably with that of other pulp wood, and the yield per unit volume is higher than most. The chief disadvantage of the wood for paper making is its high content of resinous matter, which precludes the application of the sulphite process for pulp manufacture, which in point of cheapness of operation and ease with which the product may be bleached is generally superior to the sulphate, or the soda pulp processes.

"The two latter processes may be successfully applied to the pulping of long-leaf pine, and it has been definitely proven that the sulphate process is superior for the purpose. The particular process which has been commercially adapted is the Kraft sulphate process, the product of which is a tough, long fibred, unbleachable brown pulp excellently suited for the manufacture of Kraft wrapping paper."

Death of Mr. P. J. Edwards

Percival James Edwards, of 34 Admiral Road, died recently at the home of his father, 103 St. Clair Avenue, Toronto.

Mr. Edwards who was born in Bobcaygeon 39 years ago and educated in Toronto, was until recent years engaged in the lumber business. Three years ago he took up the brokerage business and remained in it till the time of his death. He was a menber of several local clubs and was well-known as a curler. He is survived by the widow, his father, brother and four sisters.

Eberhard Faber started a successful plant for making lead pencils in 1861 at New York. A pencil slat is 7¼ by 2½ by ¼ inch. These are cut in the Southern States and shipped bundled or crated, a crate containing enough stock for 100 gross of pencils. A slat has six grooves cut in it by a machine. Lead strips are laid in the grooves and glue coated, then covered by another slat. A machine then separates the whole into rough pencils which are polished, painted, stamped and graded.

Hurd Bros., Buffalo, N.Y., recently purchased twenty-six and a half acres of land on the East Side of Bailey Avenue close to the Lackawanna Railway Company's tracks. They intend to erect a large planing mill and install an extensive yard at that point.

St. John Quarters of the Simonds Canada Saw Company

The new quarters of the Simonds Canada Saw Company, Limited, branch office and store at 53 Water Street, St. John, N.B., have been occupied long enough now to have proven the advantage of changing from the former location on Sheffield Street. The new place is in the heart of the wholesale district of St. John. In addition to the stock of

New St. John Office of Simonds Canada Saw Company, Limited.

mill saws and knives, and files, which is carried at this place there are facilities for repairing saws, a department that has proven itself a great convenience to may of the smaller mills in the provinces. Mr. John Wood is the local manager in charge of this store.

Jeffrey Manufacturing Company's New Canadian Manager

The Jeffrey Manufacturing Company, manufacturers of electric locomotives and conveying machinery, announce a change in the management of their Canadian Branch, located at No. 55 Cote Street, Montreal. Mr. M. W. Sherwood, who for a number of years was assistant sales manager at the Columbus, Ohio, factory, has been placed in charge of their Montreal office, taking the place of Mr. H. W. Scott, who has resigned to establish for himself an engineering and contracting business. In the four years in which Mr. Scott has been in charge of this office, he has made a host of friends among the lumbermen of Ontario and Quebec, and they will all wish him success in his new undertaking.

The Metagami Pulp Concession

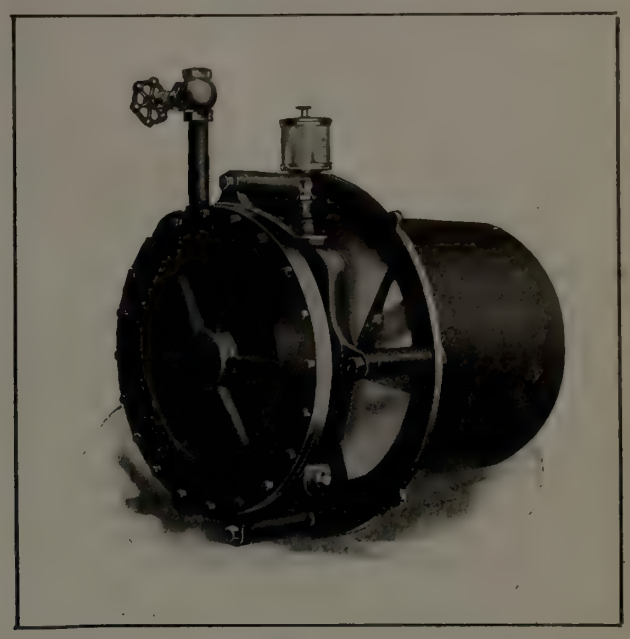
The Ontario Government has granted to tne Chisholm Corporations, Limited, of Toronto, who were the highest tenderers, a pulp concession of the Metagami Pulp Limits in New Ontario. Mr. Duncan Chisholm, of Toronto, is the principal interested party. The corporation is to put up a pulp and paper mill at Smooth Rock Falls on the Metagami River, at a cost of $1,750,000, and to operate it so that it will produce not less than 150 tons daily, equal to 100 tons of paper and 50 tons of pulp, and that 250 men shall be employed continuously. The work of building the mill is to be proceeded with immediately. During the first year $50,000 is to be spent upon the work, and during the second year $350,000. They are to pay the Government an annual rental of $1,500 for the territory. It is understood that Mr. Chisholm is now forming a company to carry this proposition. The pulp concession which he has secured includes the following twenty-one townships:—Whitesides, Carscallen, Massey, Turnbull, Cote, Robb, Jamieson, Jessop, Byers, Loveland, MacDiarmid, Moberly, Thorburn, Reid, Wilhelimina, Geary, Mahaffy, Kirkland, Laidlaw, Sydere, Bradburn.

It is officially stated that the British Canadian Lumber Corporation have closed the deal whereby the sale of the company's largest mill has been affected. The probability of an early sale is mentioned in Mr. Abraham's article published on another page of this issue. The price received is one million dollars: $50,000 cash down, $700,000 on August 1, 1914, and the balance in twelve months, bearing six per cent interest. We understand that it is the intention of the company to sell all its mills which, in the opinion of experts, will place the company in a vastly improved position.

For the year ended June 30 last the earnings of the Wayagamack Pulp and Paper Company, Three Rivers, P.Q., were $403,903 and the net profits $193,903. During the year, the plant of a capacity of 50 tons of pulp and 50 tons of paper was doubled.

The Easiest Way to Burn Shavings

A great many plants have trouble burning sawdust and shavings on account of insufficient draft in the furnace. In order to do this successfully and to get the amount of steam required a higher stack is necessary with tremendous expense. Many mills have recently adopted a small turbine driven fan which is comparatively inexpensive and



B. F. Sturtevant Company's Turbo-Undergrate Blower.

which gives sufficient draft to burn shavings mixed with coal dust or any other combination of fuel. With the additional draft it is also possible to keep up pressure quite easily and to get all the steam required. In many cases the turbo-undergrate blower has saved the cost of installing new boilers. This set consists of a small turbine with a fan mounted on the same draft. The fan is surrounded by a thimble 18 ins. long which is set in the brick work under the fire grate.

The set is manufactured by B. F. Sturtevant Company of Canada, Limited, of Galt, Ontario.

Lining Up A Circular Log Saw

McGrath, the filer, glanced up from his filing and looked me over. I was the new sawyer, come that morning to handle the lever in a small eastern mill cutting 25,000 to 30,000 ft. spruce bill stuff, with a two-saw power edger as a helper, which took all small and top logs after sawing through and through 2-in. or 4-in. with the board saw; edgings from this edger went into laths.

I had about thirty minutes before power went on. First I tried the lead of the saw. I worked the carriage so the second headblock was opposite saw at base of teeth near the spread wheel. Then I took two broken laths, about 20 ins. or so long, and with my knife brought one end of one to almost a point. This one I laid on headblock so point was near the saw, then tacked with nails the other piece, one end about 6 ins. from pointed end of other piece, the other end tacked to lower side piece of the carriage, just over the trucks or rail. Then with setworks worked beam up until the point of stick was about 1-16-in. from saw. I was sure my guide was open so as to not touch the saw, also this was done in the morning when there was no warmth in saw or mandrel. I took a shaving to see how much space that 1-16 was, as it is deceiving to the eye. I then ran the carriage back until opposite base of teeth near the guides, tried my shaving, and adjusted the mandrel so I could tell I had just a little lead. If possible, I like to turn saw half way around and try again. I then saw that the setworks came out on the 1-in. where they should, measuring how far from point of teeth uprights on carriage are when on 1-in. Then I knew where my saw was, providing track was straight.

After starting up, by watching my saw I could tell if it was doing good work and if saw was fitted as it should be. A sawyer has to be a close observer. I was told not to make any side boards—that is, side planks—even if I could only get a 4-in. face, as all slabs and edgings were wanted for laths.

McGrath, the filer, was a good mill man and filer. He could get the right tension and keep the saws up, and with swage bar and hammer make a pretty tooth, using a Covel emery wheel sharpener. But he was a mill man with a grouch. That is, a man of very few words, and those usually complaining of the supplies and the machinery in general; disagreeable to those he came in contact with at the mill. Why is it we find so many of this class amongst our best mill men? Is the constant watching and close observing wearing on the nerves, or is it one's disposition to gradually drop into this complaining? It seems we are all queer to the other fellow.

Building Up Retail Trade

For many years the country yards have been carrying a number of side lines in addition to their regular stocks of lumber, and with most of them there has been more or less added to these side lines from year to year until it has got so that the space in the average yard is all taken up with them. The stock of lumber may run down in quantity, but there is room enough on the old piles to afford space for what is brought in of new stock. There are many things, however, in a yard's stock that there is no room for where they can be seen, and so they are tucked away overhead or back in some corner, with the chances of their being forgotten even when there is an opportunity to sell them. There are other items also, that though they are where they may be seen, yet they are not seen in a way that will attract attention. Some of these, too, are not seasonable at all times in the year, and not one customer in ten knows they are in the yard, unless he happens to inquire if the dealer has them. So it may be said of the average yard that a good many of its items of stock are practically unknown and buried to the public eye.

A few days ago I noticed a dozen or more men gathered in front of the show window of a hardware store. I stopped and made one of the "rubber necks." In that large window was displayed an elaborate arrangement of things in hardware such as I never had seen before. I couldn't begin to describe it, but among these articles I saw a miniature size of monkey wrench about four inches long, perfectly made and of the very best material. It looked so cute and attractive that I at once wanted it, so I went in and bought one like it. The store was full of customers, attracted no doubt as I had been, and it was some fifteen minutes before I could get waited on. Now, I had no more idea that I was going to come home with such a thing as a monkey wrench in my pocket than I had of buying a flying machine, and I wouldn't have parted with the 35 cents I paid for it, had it been tucked away on a shelf in the store. I never would have known there was such a store in the city if that show window had not stopped me and pulled me inside.

Another instance: I saw in the show window of one of our department stores a lot of miscellaneous articles, and a sign telling that, "These are for sale in our basement." I went in and talked with the manager of the basement department, and he said that very few people would ever know they kept such things if they were not informed of it through something that would attract their attention.

With these ideas gathered in this way, I got to thinking of how many things there are in a lumber yard stock that but few people aside from the yard men knew anything of their being there. Yet they were got for the purpose of selling. This is a fact, and you'll admit it, now that I have drawn your attention to it, but will it change you in your methods of doing business in this respect? I remember an instance in my own experience that taught me a lesson that I ought to have taken advantage of more than I did, but we didn't see things in selling goods as we see them today.

Gave Me an Idea

An old farmer was in the yard getting some stuff. I was using a short ladder that I had, to climb up on the higher piles, and looking at and examining it, he said, "Gosh, I wish I had one like that, but longer." I felt sort of foolish at hearing him say that, for I had a good stock of ladders on hand, and being crowded for room I had piled them away up next to the roof in the shed, and half the time I forgot that I had them myself. On this occasion I didn't waste any time in climbing up there in that sweltering atmosphere and dust and shoving half a dozen down where he could see them. He was really surprised that I had them in stock. I sold him three of different lengths. This was in August and stacking time. The sale of those three ladders sold me a dozen more within a week, and by the time the season was over I was pretty well cleaned out of my ladder stock.

Half the people that come to the yard don't know what they want until they see it. Many a time I've had men cone into the office and say, "I've been looking all through your yard for what I want, but I can't find it." As soon as they had named the articles, the chances were that I knew I had it and could tell where it was. Probably it was in plain sight to me, but they couldn't see it. There are some things, of course, in lumber that only the ends can be seen from the alley way, but there are others such as eave-troughs ladders, molding and numberless other articles that are in stock, but hid away where the customer don't see them. Take the one article of eave-trough for instance. Practically every dealer carries it in stock, but I venture to say, very few ever nake a special effort to sell it, even in a wet spell of weather. People naturally associate eave-trough with the hardware store, and it never occurs to them that a better article can be found at the lumber yard. Yet it is a fact that a wood eave-trough properly put up will out last for several years the common tin eave-trough that is usually sold at the hardware store, and besides, is much cheaper. Comparatively little of the wood eave-trough is used on dwelling houses for the reason that the dealer don't make an effort to sell it for this purpose. Generally he handles only the trough itself and don't bother about keeping all the fittings that go with and are needed for the proper eave-troughing of a house. The carpenter should be instructed how the job should be done, and then when you sell a bill, make the effort to eave-trough the whole building. A good idea would be to put it on all your yard buildings, and in this show it up to the best advantage. An eave-trough on the alley side of your shed would carry off the water that now pours from the roof down in the alley way to help keep it in a muddy condition. Let me say this too, whenever you sell eavetrough, or use it yourself, be sure to advise and have it painted. This will prevent it checking or beconing warped. Every time a tinner puts an eave-trough on a building he sees that a coat of paint goes on it before it rains. And if he does it with metal, why should not the lumber dealer do the same with the wooden trough that he sells? I have often thought that the difference with which wood and metal is treated in this respect is a tacit acknowledgement of the superior lasting qualities of wood when exposed without the protection of paint.

A Building for the Purpose

When I consider how much of a yard stock is where people can't see it, the thought naturally suggests that there should be a special building in a yard where this part of the stock could be displayed. I think the retail business has got so now that such a show room is needed in every retail yard of a size proportionate to the character of the mixed stock that is carried. A one-storey building about 16 x 24 would be large enough for the average yard, and should be near to and connected with the office. But whether on a main street or off to one side in the town, it should by all means have a good sized show window. I think this idea with me was stimulated when I was visiting the Forest Products Exposition at Chicago. Every concern exhibiting there had a space wherein was shown a sample of every wood they manufactured. In this respect, I think the West Coast Lumber Manufacturers' Association out-did them all, for they had a full size d sample of every grade they made. A visitor could look at a full length board or piece of dimension of the different grades and see exactly the difference in their various qualities. As one of the results of this honest and splendid showing, I've understood since that orders to the amount of six million feet of the products of this association were taken during the time they were there.

There is no use though, in having a room like this unless it is used for the purpose designed. The dealer himself must become imbued with the idea of showing his goods for the definite purpose of creating a desire for them, and thus increasing the demand. He must keep it clean and change the arrangement of the articles often enough to attract the attention of the public. By the exercise of ingenuity and enterprise, he can make his show room one of the show places of the town. There should be a sample there of everything he has in the yard, and anything else he can pick up that is novel and will excite attention. It would be a place, too, that he could invite the older pupils of the school to visit. Let then come, one class at a time. I believe any school superintendent would cheerfully fall in with this idea and be willing to co-operate with the lumbermen in carrying it out. Just fancy yourself giving a little lecture talk in this room before a dozen or so of boys and girls, showing them the different woods and other articles and telling the class where they came from; how they were made, and what they were used for. Why, I am certain you would not only interest the children, but you would get mighty interested yourself in what you were doing. You would be really the largest gainer because it is a fact that we gain more in knowledge as we give it out. Then again think what it would mean to you and your business to have one or two hundred children get interested in the things in your yard, everyone of them would be asking their parents for further explanations of some things you had said to them in your talks. When you stir up the children and get them interested, you are creating a commotion in the whole community, and at the same time you are getting out of the old rut of doing things yourself.

The Law of Service

You may smile and think this is rather small business for a lumberman—one of the principal men in the community, to bother his head about. But let me tell you, my friend, there are as big men as you who don't consider that it lowers their dignity to attend to such little things as these. The greatest man in any community is its greatest servant. The greatest man that ever lived told his followers, "He that would be the greatest among you, let him become your servant." The law of service is the law of greatness, and if you look around you and out in the world, study its meaning and see its manifestations, you will realize one of the greatest truths that governs human relations. In one of our largest banks here—and it is a big one—you will see the president of the institution out in the lobby greeting the customers, directing them where to go, and assisting in many ways to make it pleasant for them. They have hundreds of women depositors, and some days the lobby is half full of them. Many bring one or two of their children with them, and it is a common thing to see the president take the little tots in his office and entertain them while their mothers are waiting their turns at the desk windows. It

is not surprising then that they have over two thousand children depositors in the savings bank department.

I am telling you all this because it is the usual thing to suppose that the president of a big bank like this is always away back somewhere in a private office, and generally unapproachable person. You as a lumberman can do no better thing to supplement your local paper advertising space than to become acquainted with the children of the town and get them to talk about you as being a "nice man." Some other time I will tell you of my experience here with a yard in the neighborhood of a lot of wild boys belonging to both rich and poor families. I enjoyed it, for it proved to be a mutual benefit to both myself and the "kids."

We often have a day in the yard trade that may aptly be termed "The day of small things," little items of sale that keep us busy, but don't foot up in the hundreds in the total for the day. A summer day's trade of this kind is hard work, for very often the yard hours extend from very early in the morning to a late time in the night. But, in accommodating this trade cheerfully with good service, the dealer is sowing the seed for much of his fall's business. Farmers don't come to town these days unless they have to. It is a busy time with them and often they are hurried and worried to get back home as soon as they can. I don't approve of a dealer's staying in the office himself and letting the yard men wait on the hurrying customers, some of whom may want things done for them that the good man is not inclined to allow on his own authority.

Must Be Handled Carefully

A customer will sometimes want something for a particular purpose and he wants to do the selecting himself. This engenders dispute and ill feeling and it requires tact and diplomacy to avoid this and to send the customer away satisfied. Many a good bill has been lost to a yard because of a dispute at such times over a little thing of a difference that amounted to but a few cents. A farmer perhaps wants a few pieces of dimension, or a few boards for some purpose that requires them to be strong, such as a hay rack, for instance. To make him take it off the pile as it comes don't suit him, and it would not suit you either, if you were in his place. For many years it was my policy to ask a customer what he wanted to use the stuff for, and then select for him the best for the purpose, and charge for it accordingly. I will tell you this, though, I did most of the selecting when I was getting in new stock. I selected the best pieces of 2 x 4, 2 x 6, 2 x 8 and 2 x 10 and put them under the shed and called the grade "Select Common." Now, whether you know it or not, a farmer generally considers that in an open yard, the stuff that is under the shed is better and more valuable than the stock that is lying outside. I noticed this peculiarity on their part very early in the game of dealing with farmers. I sold this stuff at so much a piece, instead of quoting it by the thousand feet. At the price of $10 a thousand extra on common stuff it would be apt to scare them, but the extra on a few pieces they wouldn't mind in consideration of its being better and stronger for what they wanted.

People sometimes want things which seem unreasonable to the dealer—especially to the yard men, as for instance, the cutting of a piece off another of a length to suit them. When I was green in the business, I refused to do this, and judging by this, I've no doubt but there are some young dealers now who feel as I did then—that it was an imposition to ask it. I soon learned, however, that a man in business had got to do some accommodating that went against the grain of his feelings, and being of an adaptable nature, I soon became adjusted to dealing with "cranky" notions and unreasonable demands. Moreover, I found that it paid to do so, and was a part or the business, and therefore, I got so that I would cut a piece off of anything I had in the yard. But mind you, I reesrved the right to set my own price on what I cut off, and always told the customer before hand what the short piece cost him. Wide finish that was used for certain purposes and had to be of just such a length for them, I exempted from this policy but, speaking in a general way, I usually gave a customer what he wanted if I had it. But it takes the "boss" of the yard to determine what to do in cases of this kind.

There are more or less cases in a town where people want short pieces of lunber for many purposes, and they don't want to buy a whole length at the yard for what little they want. It used to be that such little things in lumber could be got at the carpenter shop, but nowadays, carpenters don't have much lumber of their own in their shops. So, if a woman wants a piece for an ironing board or a shelf, she sends the old man to the lumber yard for it.

As a general thing people look upon a lumber yard as a place where they keep lumber of certain lengths and sizes for building uses only, and that if they wanted anything smaller they would have to buy more than was needed. I think it would be a good idea for a dealer to advertise that he would furnish lumber for any purpose required, from a clothes line prop to the largest sized bill, and specify a number of little things that are often needed. I don't know but what it would be a good plan, too, to have a lot of short stuff and a bin in the shed fitted up to pile it in an orderly manner. Short stuff that lies scattered around the yard, or thrown into a junk pile, is considered by other people as sort of waste, and not anything to be sold. But if it is kept in some one place and neatly piled, they will think it worth something, or the lumberman wouldn't go to the pains to take care of it. If a farmer sees a four or five foot piece of twelve-inch board lying round at the side of the alley he is likely to ask you to give it to him for a seat board, but if it was in its place in the bin spoken of, he wouldn't think of such a thing. There is more profit in "shorts" than anything else a dealer handles, but he has got to take an interest in creating a demand for them for purposes, aside from how they can be used by the carpenters in a building. You know as well as I do, that many people in the country places prefer to do their own carpenter work on their small repair jobs. I have even had such folks ask me to cut up their lumber for them, because of their having a poor saw. People try to do a good deal with nothing but a saw and a hatchet. Speaking of this, puts me in mind of a circumstance that may interest and give you a hint besides.

Just What He Wanted

I always had a couple of carpenters' saw horses in the yard, and one day after I had used them to cut up some stuff for a farner, he said, "I'd like to have a saw bench like that on my place." "All right," I said. "I'll sell that or both of them if you want them," I named a price and he took them. I took the print and went to work and made up a dozen, using all the "shorts" I had around the place, and they were sold, and a lot more during that summer and fall. I had no idea of having such a run on a little thing like that. Then I turned to and made a few wider benches to set on the back porches in the town, but the farmers' wives saw them, and wanted them to set their milk pans on. I remember one woman took three of them, saying there was nothing outside but the ground to put anything on, and they were just the thing she wanted. I'll tell you another thing that will capture the desire of country housekeepers, and most of them, you know, have their family washing done at home. Go around town and see what sort of makeshifts they have to stretch their lines on. Mostly a piece of 2 x 4 stuck in the ground and propped up at that. Supposing, now, you get in some six-inch ten-foot cedar posts, with about seven feet of it turned smooth in a lathe with an ornamental top on it. Bore a hole at the top. Put a hardwood pin in it to fasten the clothes line on. Paint the whole white and make a special ad. about them in the paper. Take it from me, my friend, when a woman sees a set of them in her neighbor's back yard you know she is going to manage the finances some way to have them. Along with them sell a couple of clothes props, made of an 8-foot 2 x 2 and a notch cut in at the top.

There are many sections of the country where wooden water tanks are still being used by the farmers, and will continue to be used until they can afford to make them of concrete. Making these tanks and having them for sale in the yard is another thing the lumberman can do to his profit. He can make them of different sizes and quality of material so as to meet the buying capacity of those who have, and those who haven't much to buy with. I saw this being done in a yard once and, in talking with the dealer about it, he said that the ones made of the cheaper material sold more rapidly than those made of the higher priced tank lumber. Good No. 1 common, when cut up and well painted, looks just as good as the best, and the lower price will sell them in preference. My idea in making these tanks and having them for sale at the yards is this: If you talk to some farmers about buying tank stuff, they are apt to put it off till some other time, and the chances are they will keep on putting it off. Some day they will come to town with no thought of it in their heads, but when they see one ready made, all their desires and need for one will crowd up in their minds and compel then to ask, "What do you want for that tank?" and the probability is it is loaded on his wagon before he leaves town.

Buying of this kind is done in town every day. Farm folks will drive to town with the idea only of getting a few things at the store they are out of, and drive home with other things in addition, which they wouldn't have purchased if they hadn't seen them. And there is no good reason why a lumber yard should not profit also from this sort of thing. Another thing about the making of these tanks by the lumber dealer is: He can get the work done by the slow pay carpenters who owe him and are likely to continue to owe him unless he can get them to work it out for him in this, or some other way.

The dealer whom I have mentioned, told me that he got most of his work on his tanks done in this way, and in order that they would not "soldier" on the job, he allowed a certain price for each sized tank, and they could work as fast or as slow as they pleased. There is no need for idle time in any lumber yard if the dealer has the wit and enterprise to see and use his opportunities.—C. H. Ketridge, in the Mississippi Valley Lumberman.

Recent reports from Vancouver, state that the Offshore lumber trade is increasing. The Vancouver Lumber Company has contracted to ship a cargo to Capetown, South Africa. A shipment of 1,250,000 feet was also recently taken on by the American Barquentine Kokohead. The same company will also send a cargo to Australia early in the new year.

How to Sell Lumber

Were I a doctor of selling and asked to prescribe for a patient suffering with superfluous granulation of sawmill products, the remedy would call for the following ingredients:

Well substantiated faith in the value of your products.
Understanding of the purposes for which they are best adapted.
Careful study of all sources of outlet.
Absolute disregard of competitive materials.
Systematic advertising to possible customers.
A sales force surcharged with the idea "our" stock is worth the price.

"War of the Substitutes"

If substitutes be warring on forest products and encroaching on the field formerly occupied by lumber it must be an individual warfare for private gain. As the case appears to me, it is simply a struggle for private advantage, the raiders aiding each other when to give aid does not interfere with their individual plans. Some of the private interests behind this aggressive movement are very large and very powerful, and their power is being felt throughout the land. They understand all the elements of salesmanship and constantly are adding to their store of knowledge; for salesmanship, you know, is a progressive study. They believe absolutely in the value of their product. They are impressing their belief on others.

In the face of the avalanche of claims and counter claims that have been made the lumberman shrinks back disheartened, convinced that all the good things that could be said about any kind of material have been said in favor of the substitutes.

Seemingly, lumbermen believe that the alleged "fireproof" structures made of steel and concrete are the best that can be secured. Scores of "fireproof" sawmills and planing mills have been put up by lumbermen, because they, the lumbermen, have been told of the advantages of building such plants. A number of them have been totally destroyed by fire and have been replaced with wooden structures, but the lumber industry has not made capital of that fact because it has not realized and seemingly does not realize that the repeated failure of the alleged fireproof buildings is a telling argument for the use, under proper conditions, of common sense mill construction buildings.

Intelligence Wars on Ignorance

This seeming "War of the Substitutes" in reality is the toll intelligence demands of ignorance. Manufacturers of substitute materials were forced to create a market for their products. That necessity made a painstaking study of the uses and values of such materials imperative. The manufacturers found, perhaps invented would be a better term, uses for their materials and developed a wonderful confidence in them.

It should be known to every lumberman that manufacturers of cement, for example, never tried to sell one barrel, 25 barrels or 100 barrels of cement. The idea was to sell the customer a feeding floor, "imperishable" mangers, barn boors that were rat proof and water proof, "indestructible" sidewalks which never wear out, artificial stone for all manner of purposes and subsequently siding for the home that does not require painting. That idea was worked out logically and systematically. Today there probably is more outside wall area being covered with their plaster than with our siding. That one argument: That a plastered building need not be painted, has caused the lumbermen to lose the sale of millions of feet of siding.

Enthusiasm vs. Indifference

Unless there be objection to grade or count, the lumber manufacturer loses interest in his product the moment it leaves his hands. He has produced the lumber, some one has bought what he produced and the transaction is closed. His work, as he sees it, is to make more lumber, to work night and day at his task of production. It shall be through no fault of his if there is not enough lumber to supply the demand, and he hopes against knowledge born of experience that there will not be quite enough lumber to go around so that he may get a fair price for what he makes.

Intelligence Gets the Best of It

The world is ruled by the intelligent few. That may not be a democratic doctrine, but it is the "state of affairs." When Farmer Worthy comes to town to buy material for a barn, a silo, a garage, or an implement shed he is not wholly convinced that he wants a substitute for wood. He asks the dealer, who is rather non-committal,—"I can furnish you lumber, cement, brick or hollow tile, anything you may want, and it's all good stuff."

"I know all about the cement, brick and tile, for you furnished me literature about 'em, and I heard the lecture the feller gave at the town hall."

Now the point of it all is that the manufacturer of the substitute material is continually endeavoring to interest the consumer in his products, and is succeeding. The user is being taught what the material is good for, how to use it to secure the best results and particularly why the substitute should be used in place of lumber.

If the average builder were left to his own devices he would have continued to use lumber, but many and varied interests were concerned in his use of other materials, so he was not left to his own devices. The consumer has been educated and is continually being instructed regarding the values of substitute materials.

The consumer is not being educated respecting the uses and values of lumber, save to a very limited degree, and he does not invest in lumber because he is not told day after day, week after week, month after month and year after year that such investments are profitable; nor is he being taught how to make his investment in lumber —for he continues to use lumber for certain purposes—a source of profit to himself. He believes he is paying the dealer a big profit, that the manufacturer is deriving a tremendous profit, but he does not see wherein he is profiting.

In any kind of work that which is guided by the greatest intelligence is that which makes the best showing.

Leadership Needed

Where are the leaders in lumber salesmanship? You can pick out a few that are working along the proper lines. You can get almost any number of sales managers who will prepare able papers on the "Selling Question," but you will find very few lumber organizations that are developing a sales policy or a sales department or endeavoring to do so.

The chief difference between manufacturers of lumber and manufacturers of other products is this:

Producers of substitutes sell to the dealer and for the dealer, producers of lumber sell to the dealer.

The expense and labor incident to interesting the public in lumber and convincing the public that money invested in things made of lumber is well invested is too great for the retail lumberman to assume in its entirety. Manufacturers of the other kinds of materials he handles are doing that work for him and if the lumberman does not care to assune the burden, the dealer is content with the business that comes to him and with the profit he makes from the sale of materials that are in request.

Making It Pay

Any lumberman producing 100,000,000 feet or more of lumber can afford to maintain an alert sales force. One of the chief duties of that force should be to create new and profitable uses of the company's products. In the case of a company producing 100,000,000 feet of lumber the expense probably would be 25c per 1,000 or more. Where the production is greater the expense need not be quite so great.

No general plan can be followed. Each producer should study his own product and study, also, the particular field in which that product should be used more extensively than it now is used.

An Individual Problem

Selling lumber intelligently is an individual problem. In some cases manufacturers are so grouped that they may combine their efforts and reduce the cost of the work. But in no sense is the sales question one of the big problems to be handled for the benefit of the entire industry.

Now to make that situation more easily understood, the big lumbermen of the country cannot drop a contribution into the box and wake up next month or next year to be confronted by a demand for lumber that cannot be supplied. Attenpts to handle the problem in the manner indicated are about on a par with attempts to make men honest by proclamation.

When the time arrives that the builder can be shown that to buy lumber and use it intelligently means to make an investnent from which he will reap convenience, profit and satisfaction, it will be easy to sell lumber, but until that time arrives it will be increasingly more difficult to sell lumber.—Lumber World Review.

The Fixed Knife; English Planer Practice

If one were to make comparisons between American and British methods of machine work, the points which would be most noticeable would be the predominance of band resaws on the American side and the gang and circular saws on the British side. This in the matter of sawing, or, to be more exact, in the matter of resawing. The common machine on the British side is the horizontal frame saw; which makes one cut at a time, and does that well.

It is rather remarkable that of late years there has been a decided attempt on the part of British manufacturers of woodworking machinery to push the band resaw for all it is worth. A considerable number of advertisements of band resaws have appeared in the various trade papers, and from a casual glance at the work turned out by the mills, a number of sawmill owners have invested in band resaws, More especially does this seem to be the case among the packing case and boxmakers. The results, to my mind, are not at all satisfactory; the wood sawn by the band resaws does not compare at all favorably with that sawn by the ground-off and swage saws. It shows bad ridges, and there is not that cleanliness of cut about them that makes a box made of wood, cut with a ground-off, look so well finished.

From this it will be seen that in America you have been making way for use with regard to the use of band resaws, but what are you doing with planers? Here, I think, you have been following our lead.

We have always done good work with planers, having made it a special study. Our progress in planing has been along the lines of the fixed knife, whereas yours has been with the rotary cutter. I do not mean to say that all our machines for planing are fitted with knives that will plane on all four sides, though there are one or two sawmill engineers who do make such machines. These are huge machines with rotary cutters to reduce the wood to a uniform size, then fixed knives to take a shaving from every side.

The majority of English machines are only fitted with fixed knives for planing on the bottom; these are essentially planing machines and are used for making floor boards and matching. I notice from the advertisements in The Wood-Worker that very few machines with fixed knives are used for planing, and, from the general trend of the articles upon planing, that few hints on working fixed knives are given. The whole range of articles is upon the difficulties met with in the four-headed nolder. This is well; there are sufficient problems attached to running a molding machine that every point of view is helpful, and even the oldest of us can at times learn something useful.

The use of the fixed knife will become more common as the advantages are better known. Even as we are taking up with the band resaw, so the planer with the fixed knife will be taken up by those firms which want to turn out the best work. The fixed knife on planers is no new idea. I can remember my father saying that his first job at a mill was taking the long shavings from a planer to the boiler house. That would be some sixty years ago, so it is not as though the fixed knife is a tool that wants a lot of proving, to be just the thing, before it is adopted. If years of experience tells, then it has stood the test. The reason it is not so universally used may be because a good deal of work can be badly spoiled if the fixed knives are not set properly.

I have noticed that even some good machinists, who can make and set up an ordinary molding machine, get poor results from fixed knives, so poor that whenever it is possible they do not use them, but trust to the rotary cutters to get a finished surface. We all know that with the rotary head, the slower the feed the smoother the finished wood, the slighter the saving and the least possibility of tearing up the cross-grain. With a rotary head, unless the cut is made very rapidly, the cross-grain is dealt with fairly well; the cutters do not tear it up to any great extent.

Not so with the fixed knife. It does not matter whether the feed is fast or slow, if the knife is not set correctly, out comes the cross-grain, and the surface of the wood has a number of pits which disfigure it greatly. It is this, more than anything else, which has done so much to discredit the fixed knife. On the other hand, it is possible to plane wood equal to that which has been through a scraping machine; to have the cross-grain so closely closed that it can scarcely be seen. Not only this, but it does not matter how fast the wood has been fed to the fixed knife, the result is the same; indeed, it is better when fed faster than when it is fed slowly.

I once got a machinist out of a bad fix. He was planing oak flooring, 5 x 1¼-in., and the surface had to be finished with the fixed knife. He had a rotary head before the fixed knives, and was taking off two shavings which were of equal thickness and which hung limp from each knife. I looked at the finished boards and the cross-grain was out—torn out in chunks. The noise that would have been made over that flooring, if all of it had gone through like that, would have been alarming; the machinist was looking worried.

"I think I'll only work the bottom cutter, not the knives," he said. "Look at those boards. My word! but there will be something said if they all come out like that."

"Yes, and there will be something said if you finish them with the rotary cutter. The head is marking them, and as the flooring will be polished, every mark will look worse when polished than it does now. Why not take a fine shaving off the last cut and set the back iron so it will close the grain?"

"What has the back iron to do with it?" he asked. "I thought all it was for was to keep the shavings free from the bolts."

"Not at all; the back iron is the master of the situation. Upon it depends whether you turn out good work or bad. Shall I put things right for you?"

"Yes, I wish you would. I will get discharged for this job if I don't alter."

He was a nice young man, so I set to work to put things right. I had the first knife box out and looked at the knife. It was out of proportion to the bed of the machine. I took out the knife and looked at the back iron; it was down over ⅛-in.

"If I have the back iron closer it will clog," he said. "That is why I will not alter it."

I took out the back iron and laid it on the knife. As I thought, it only touched in three places—three points, to be exact—so it did not matter how tightly you screwed up the back iron, the space between the back iron and knife still remained. When the back iron was set close and a thin shaving taken off the wood, the shaving broke and part of it went into the spaces between the knife and the back iron. This was soon put right and the three points levelled down until the whole edge of the back iron touched the knife. To further protect the back iron from becoming clogged by the shavings, I rubbed it up on an oil stone until a burr formed on it. This made the back iron absolutely shaving proof.

Then I examined the knife with regard to the bed of machine, or rather to the bed of the plane box. It was high in the center, so much so that the shaving was thicker here than it was at the edges—in fact, twice as thick. I put a straight-edge on the knife box and found it comparatively straight, so to have a uniform shaving meant that the knife had to be rubbed down in the center. To work off a high part in the center of the knife it is well to work the knife crosswise on the stone, a movement from side to side, not from and to you.

I got the knife straight, then set the back iron. It was not parallel with the knife; there was a difference of 1/16-in. at the ends. This certainly would not do for good work; the edge of the back iron resting on the knife should be exactly like the edge of the knife when the back iron was set; the space between the two edges would be uniform. I sharpened the knife and set the back iron so it was not more than 1/20-in. below the edge of the knife, and set the knife so it projected that amount above the knife box. This meant that it would take out a shaving that thickness, and the back iron would support the under wood while the shaving was being taken off.

The second knife was attended to and various little faults also corrected. These were very similar to those in the front box. The back iron wanted truing up so it laid flat on the knife and the knife wanted grinding and truing up to the box. I set this knife so it took off a very thin shaving and set the back iron so it was just the merest trifle less than the thickness of the shaving, for this reason: The surface of the board, when the shaving is taken off with the back iron very close to edge of knife, presents almost an unbroken appearance; the cross-grain is cut so closely that it lies almost as flat as the straight grain. When the two knives were set, it meant that the first shaving brought the face of the board to a level and the second knife gave a finished surface that was equal to the best hand work.

It is rather remarkable that the shaving will show the position of the back iron; when it is low down the shaving is quite limp, hangs without any distortion. But put the back iron up, so that it will do its work, and the shaving takes on a different appearance. If the back iron is closer at the center than the edge, the edges of the shaving will almost meet; if the back iron is at correct distance, the shaving will have loops in it like a curtain that has been draped.

If those "doubting Thomases" who believe that a back iron is of little importance in closing up the cross-grain, will try the experiment of working with the back iron down, also with it quite close to the edge of the knife, they will soon see that what I say is correct.—W. J. B., in the Wood-Worker, Indianapolis.

Efficiency for Small Circular Mills

Having been connected with several small mills over the hardwood section of the country in various capacities, such as filer, sawyer, inspector, etc., I have noticed numerous cases of negligence and overlooking of small details which cost the proprietor considerable money, says O. E. M. in the Woodworker, of Indianapolis.

The owner of a small plant bought a new mill, and with it he ordered a heavy, thick, inserted-tooth saw, some one having informed him that this was the best saw to use. No doubt it is the best for some mills in certain kinds of timber, but in this case he did not need it. I advised him to buy a pair of thin, solid-tooth circular saws, telling him I thought he would save money by it. He claimed the inserted-tooth was the best, so the argument was dropped at that time.

Later on this man told me that within a short time he had to meet a note amounting to $350, and, his means being small, he could not raise that amount of cash immediately. I concluded the time was ripe to convince him of his bad judgment in the matter of selecting saws, and explained it to him as follows:

He was cutting oak, poplar and cherry timber. His contract called for 400,000 feet, the principal part consisting of nice yellow poplar. There was exactly ⅛-in. difference in the kerf between the solid-tooth and inserted-tooth saw. This loss equaled 1,000 ft. to every 16,000 ft. cut, and one-sixteenth of 400,000 feet (amount of contract) equalled 25,000 feet. The majority of this being poplar, it would easily average $17.50 per thousand, and multiplying this by 25,000 feet equals $437.50.

When I placed these figures before him he was astounded, and declared that at his next location he would have thin, solid-tooth saws. If he had used two solid-tooth saws he could have changed saws instead of filing on the mandrel, as he did, thereby losing time.

I am not, however, arguing altogether against the inserted-tooth saw, for in my opinion it is the best for some kinds of timber, especially hickory, also where there is trouble with heavy sand or gravel. But in the majority of small mills not cutting hickory, pecan, etc., and not bothered with sand or gravel, the thin circular will do perfect work with less kerf than the inserted-tooth, providing track is level, manurel hung properly and saws hammered and dressed in good condition. In fact, the main thing is to have a man who has had plenty of experience with thin saws.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

WANTED—3 x 3 x 18 in. dry Rock Maple squares. The B. H. Piper Co., 335-349 Somerville Street, Manchester, N.H., U.S.A. 15-16

Stumpage Wanted

Wanted to buy white pine stumpage in Algoma District. Address Box 53, Canada Lumberman, Toronto, Ont. 14-14

Wanted

One or two blocks of Spruce, also Pine, must be well manufactured. Apply Box 31, Canada Lumberman, Toronto. 11-t.f.

Wanted

One or more cargoes of 1 and 2 in. Spruce for delivery at a Lake Erie Port.

E. C. BRADLEY LUMBER CO.,
14-17 Cincinnati, Ohio, U.S.A.

Wanted To Buy

Two million No. 1, 2 and 3 Pine Lath and one million Hemlock Lath.

M. BRENNEN & SONS,
12-15 Hamilton, Ont.

Wanted

1,000,000 ft. Spruce, 1-in., 1¼-in. and 2-in. If not already cut will give sawing instructions. Apply Box 30, Canada Lumberman, Toronto. 11-t.f.

Lumber Wanted

Soft Elm, 4/4 Log Run.
Basswood, 4/4 full product.
Ash, 4/4, Log Run.

Quote rock bottom prices for cash F.O.B. Mill for dry or new cut. Box 63, Canada Lumberman, Toronto. 15

Wanted

Soft Elm, 4/4 log run.
Birch, 5/4 log run.

Quote lowest prices F.O.B. mill for dry or new cut.

E. M. NICHOLSON,
Board of Trade Building,
9-t.f. Montreal, Que.

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

To Manufacturing Lumbermen

Wanted—Clear Birch, kiln dry preferred, cut to following measures: can take about 22,000 pieces per year in two deliveries, viz.: 8,000 cut 21 in. x 5 in. x 3 in. and 3,000 cut 28 in. x 5 in. x 3½ in. Quote prices C.I.F. London, Eng. Address Geo. Care Ltd., Victoria St., Norwich, Eng. 15-17

For Sale-Lumber

FOR SALE—Three or four carloads of XXXX Cedar Shingles. Also 15,000 small Cedar Ties, good for construction, siding or radial purposes. Quick shipment. Will make the price right.

The John Carew Lumber Co., Ltd.,
15-16 Lindsay, Ont.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

Hard Maple Lumber For Sale

One car 4-in. firsts and seconds, $37.00.
One car 3-in. firsts and seconds, $32.00.
12 M. feet 2-in. firsts and seconds, $32.00.
Down Tally No. 1 and 2 Com., $23.50.
Three cars No. 1 Com. and Bet., 80 per cent. firsts and seconds, $30.00.

All well manufactured stock, winter cut, bone dry. Apply immediately, Box 64 Canada Lumberman, Toronto. 15

We Own and Offer

subject to prior sale, the following Rock Maple lumber:

200,000 ft. 1sts and 2nds 4/4 in., $33 per M.
30,000 ft. No. 1 Com. 4/4 in., $23 per M.
30,000 ft. 1sts and 2nds 6/4 in., $35 per M.
10,000 ft. No. 1 Com., 6/4 in., $25 per M.
100,000 ft. 1sts and 2nds 8/4 in., $36 per M.
20,000 ft. No. 1 Com. 8/4 in., $26 per M.

These prices are all f.o.b. shipping point, on an easy rate of freight to New York and Boston.

c Apply Box 47, Canada Lumberman, Toronto, Ont.

Lumber For Sale at Seguin Falls

Dry and ready for immediate shipment, will ship mill run culls out. Birch at $23 per M. ft., Hemlock $16.75, Pine $25 per M. ft. F.O.B. cars.

	Feet
1 and 2 in. Birch, 12-16 ft. lengths...	20,000
1,715 pcs. 2 x 4, 10-18 ft. Hemlock..	13,470
1,416 pcs. 2 x 6, 10-18 ft. Hemlock..	17,476
4,295 pcs. 2 x 8, 10-18 ft. Hemlock..	72,907
1,433 pcs. 2 x 10, 10-18 ft. Hemlock.	51,911
1,849 pcs. 2 x 12, 10-18 ft. Hemlock.	46,974
Hemlock, 1-in., 10-18 ft.	54,300
1 in. x 2 in. Pine	8,300
	285,338

Apply to MONTEITH BROTHERS,
14-17 Rosseau, Ont.

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.
This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale-Machinery

WOODWORKING MACHINERY FOR SALE—1 24-in. Champion planer, matcher and moulder; 5 30-in. Ideal pedestal bandsaws; 1 MacGregor-Gourlay variable power feed rip saw; 1 36-in. Egan double drum sander; 1 No. 51 Crescent universal woodworker; 1 12-in. Crescent jointer with safety head; 1 Hespeler improved power mortiser; 1 10-in. Hespeler four side moulder. H. W. Petrie ,Limited, Toronto. 15

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED—Position as sawyer, circular or band. Can furnish good references; open middle of July. Box 77 South River, Ont. 14-15

Experienced lumberman is open for position on road, or would take management of retail yard. Address Box 65, Canada Lumberman, Toronto. 15

Position wanted as practical sawmill foreman. Twenty years' experience. Can furnish the best of references. Address Box 51, Canada Lumberman, Toronto. 14-t.f.

Wanted position as shipper or foreman or both in small plant, soft or hardwoods, twenty-five years' experience. Can furnish first class references. Box 56 ,Canada Lumberman, Toronto. 15-17

WANTED—Position in Saw or Planing Mill. Office and mill experience. Could take charge of Sales, or act as Mill Foreman or Yard Foreman. Excellent references. Box 44, Canada Lumberman, Toronto 13-16

EXPERIENCED SUPERINTENDENT wants position to take charge of lumbering operations, bush, mill, etc. Desires a change. Can get results and furnish the highest credentials. Box 46, Canada Lumberman, Toronto. 13-17

A thoroughly practical lumberman wishes to connect with reliable firm either as salesman or buyer. Ten years as partner in well-known Ontario lumber firm—six years' experience selling on road. Familiar with every angle of lumber business. Would consider salary or commission proposition. Best of references. Full particulars from Box 37, Canada Lumberman, Toronto. 12-15

Woods or Mill Manager—Position wanted in New Brunswick by thoroughly experienced manager, who has had 17 years' experience in woods and mill management, has always been successful in handling large crews and understands all details of the work, is a first class bookkeeper. Has been for upwards of ten years with firm of lumbermen at present employed by. First class references; can be at liberty in two months. Address in first instance Box No. 57, Canada Lumberman, Toronto, Ont. 15-16

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—A young man with experience as salesman for sash and door factory. Apply to Box 38, Canada Lumberman, Toronto. 12-15

Wanted—Man with experience in getting out saw logs from stump to mill. State salary and references. No boozers need apply. Box 62, Canada Lumberman, Toronto. 15-16

Lumberman with small capital wanted to take on contract to lumber and saw material on small limit. Sawmill and other tools supplied to good man. State experience and capital, in confidence to Box 60, Canada Lumberman, Toronto. 15

Woods Manager Wanted

Thoroughly practical man required to take charge of large woods operation; must have considerable experience in driving. Salary one hundred and twentyfive dollars month, with increase after ability is shown. Apply by letter ,stating experience and references, to Box 200, Canada Lumberman, 119 Board of Trade Building, Montreal. 15-16

Business Chances

For Sale

Timber Limits, principally Hemlock, also Pine, Spruce and Hardwood. Also Saw-mill, logging and driving outfit. About quarter million burnt timber to be disposed of at a reasonable price. For particulars address Box 52, Canada Lumberman, Toronto. 14-17

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

An Opportunity—Sawmill Wanted

for Hardy Bay, north end of Vancouver Island, B.C. Fine harbour, projected terminal for C. P. R. Free site and bonus for responsible parties. Large amount of timber (gratis) in immediate neighborhood. Write for full information. Bagshawe & Co., 214 Pemberton Building, Victoria, B.C. 15-18

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Timber Limits and Saw Mill

Limits No. 59 River Gatineau, 3 square miles, and No. 483 Grand Lake Gatineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Cedar, Pulpwood, etc., also New Waterous 8-ft. Improved Double Cut Band Mill, fully equipped and up to date 200 H.P. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggons, Trucks, etc., Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q., about 50 miles from Ottawa. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

GUARANTY TRUST COMPANY, LTD.,
802 E. T. Bank Building,
263 St. James Street,
13-16 Montreal, Que.

An Experienced Lumberman

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Tenders for Fallen and Burnt Timber

Tenders will be received by the undersigned up to and inclusive of the 15th day of September, 1914, for the burnt and fallen timber on Berths 2 and 4, Township of Nipissing.

Also tenders will be received for Berths 2 and 4, Twp. Nipissing and Berth 4, Twp. Gurd.

The highest or any tender not necessarily accepted. For par iculars address

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Miscellaneous

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

Timber Preservation

The most notable progress yet recorded in the chemical treatment of timber to prevent decay was made in 1913, according to a report recently issued by the American Wood Preservers' Association in co-operation with the forest service of the Department of Agriculture.

The report states that 93 wood-preserving plants in 1913 consumed over 108,000,000 gals. of creosote oil, 26,000,000 lbs. of dry zinc chloride, and nearly 4,000,000 gals. of other liquid preservatives. With these the plants treated over 153,000,000 cu. ft. of timber, or about 23 per cent. more than in 1912. The output from additional plants unrecorded would increase the totals given.

Impregnation of wood with oils and chemicals to increase its resistance to decay and insect attack, the report goes on to say, is an industry which has become important in the United States only in recent years. In Great Britain and most of the European countries practically every wooden cross-tie and telephone or telegraph pole receives preservative treatment. In the United States less than 30 per cent. of the 135,000,000 cross-ties annually consumed are treated, and the proper treatment of an annual consumption of 4,000,000 poles may be said to have scarcely commenced.

Real progress in the United States dates from 1852, when the Kyanizing process, using biclorides of mercury, was developed. In 1837 two other processes were introduced, the Burnett process using zinc chloride, and the Bethol process using coal tar creosote. These last processes are very largely in use today.

The idea of timber preservation at first made very slow growth in this country, on account of the large supply of cheap and durable timbers and the general disregard shown toward economy in the use of natural resources. In 1885 there were only three pressure plants in the United States; and in 1895 only 15. Since then, however, the industry has grown rapidly; in 1913 there were 117 plants.

Wood Used by Stave and Box Men

The U. S. Forest Service, after two years or more of investigation in all portions of the United States, has published figures showing how much wood passes through factories yearly, and how much goes into each industry. Fifty-five industries were separately investigated. It was found that 24,673,846,064 feet of wood of nearly 100 kinds is converted into finished products in course of a year. The total sawmill output of rough lumber, including large mills and small, is approximately 45,000,000,000 feet a year. Considerably more than half of it is, therefore, manufactured further before it reaches its final use.

It is interesting to note how much of this goes into boxes and cooperage. The Forest Service's figures show that, next after planing mill products, boxes constitute the largest wood-using industry in the United States. The annual use of wood in certain items is shown as follows:

Slack staves, 2,029,548,000 pcs.; slack heading, 140,234,000 sets; hoops, 375,793,000 pcs.; tight staves, 379,231,000 pcs.; tight heading, 20,691,201 sets; boxes, 4,547,973,180 feet; woodenware, 405,286,436 feet; tanks, etc., 225,617,686 feet; tobacco and cigar boxes, 63,154,226 feet; bungs and faucets, 21,112,342 feet.

Canadian vs. American Banking

There has been considerable discussion going forward in the American press regarding the superiority of the Canadian banking system as against the American system of financing. The statement has been made repeatedly that the elasticity enjoyed under the Canadian system permitted a freer and easier movement of money where it was most needed. A well known British Columbia lumberman in discussing this subject with "The Timberman," says: "I have noted the frequent references to the advantages of the Canadian system of banking as compared with the American but I want to give you a close range view of the situation insofar as it affects British Columbia lumbermen. You will understand that there are comparatively few banks in Canada each of which has a large number of branches scattered throughout the Dominion. Managers in charge of these local branches have only a limited discretion in making loans. Whenever a situation arises when the head office decides these loans should be partially curtailed or entirely called in, this decision is communicated to the local manager who is given little authority or discretion and he must carry out the wishes of his superiors irrespective of the local conditions governing the particular industry in which the borrower may be engaged. It is not uncommon that borrowers have been compelled to take a three thousand mile trip to lay before the directors the actual conditions and if possible secure an extension of the loan until such time as conditions will permit a reduction of the account to be made. No such condition as this as I understand it, obtains in the United States for the reason that the bankers who make the loans have the power of extension in their hands. This is a form of elasticity which the Canadian banking system does not enjoy and it is often appealed to me that if the American customers of the banks understood this relation they would feel more satisfied with their own system. Far pastures always look greener."

The Handle Sells the Axe

It is said that the popularity of American axes in many foreign countries is due more to their hickory handles than to the metal in the bit or the pattern of the tool. Foreign factories can work metal about as well as it is worked in this country, but foreign forests do not grow hickory or any other wood like it. That must come from America. The same observation holds in regard to many slender-handled hammers. Their hickory handles sell them in many foreign markets. This has been shown in numerous instances when attempts to sell the hammers without the handles have been unsuccessful.

Northern Ontario Pulp Wood

The shipments of pulp wood in Northern Ontario by the Temiskaming and Northern Ontario Railway have fallen off considerably this season. The returns for May giving the shipments to Niagara Falls, Thorold, Merritton, Port Huron, Sturgeon Falls, Johnsonburg, and other points of destination, as compared with shipments for the corresponding month in 1913, show that the decrease has been 390 cords. In May, 1913, there were shipped 131 cars containing 1,890 cords, and in May, 1914, there were 112 cars containing 1,500 cords. The past few weeks have been very favorable for settlers working on the land, and their attention has been given more to the cultivation of the constantly enlarging clearances than to wood cutting.

Flooring One-half Inch Thick

The latest thing in hardwood floors is said to be plain and quarter-sawed oak one-half inch thick in the finished size. This is tongue and groove flooring and is destined to take the place of the regulation 1 x 3-inch flooring, which is finished 13/16 x 2¼-in. face. The new thickness in actual practice proves as durable and makes as good a floor as that which is 13/16-inch thick and it has the added advantage of being more reasonable in price and of wasting less in laying. The regulation 13/16-inch flooring wastes one-third, whereas the ½-inch, being 2-inch face measured as 2½ inches, wastes only 25 per cent. It is stated that there is a saving in the cost of ½-inch floor of from 19 per cent. to 25 per cent. Of course, it is needless to say that the ½-inch flooring is immeasurably superior to the cheaper flooring strips that are being laid to such an extent, as well as the ⅜-inch material. It is quite probable that before long the ½-inch flooring will become the standard size in hardwood flooring.

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Cleans a building of Rats and Mice in short time, keeps it cleaned, for it is always ready for use. Made of galvanized iron, can't get out of order, lasts for years. Large number can be caught daily. Go to Catcher mornings, remove device inside, which only takes few seconds, take out dead rats and mice, replace device, it is ready for another catch. Small piece cheese is used, doing away with poisons. Catcher is 18 inches high, 10 inches diameter. When rats pass device they die, no marks left on them. Catcher is always clean. One of these Catchers set in a livery stable in Scranton, Pa., caught over 100 rats in a month. One sent prepaid to any place in Canada or United States upon receipt of $3. Catcher, 8 in. high, for mice only, prepaid $1. On account of shipping charges being prepaid, remittance is requested with order.

H. D. SWARTS,
Inventor and Manufacturer, Scranton, Pa.

Review of Current Trade Conditions

Ontario

A little more activity is reported in connection with the biulding trade in some of the larger cities of Ontario, but in spite of this the wholesalers and manufacturers of lumber do not report any important improvement in the trade situation. The natural conclusion is that the retailers still have sufficient stock to handle the amount of trade that is in progress. Wholesalers are divided in regard to the outlook. A few who expect that the crop situation will be the important feature are looking for a turn for the better in the course of the next month or two. There are many however who take quite a different view and believe that the present quiet season will extend for several months. The opinion is unanimous that trade is much quieter than usual at this time of year, and very few seem to feel that any improvement can be expected for some time. If one were to take the opinions of the retailers however, as a guide, he would form a much more encouraging view as to the trade situation. The general lack of definite information upon which to base opinions is causing manufacturers and wholesalers a great deal of uncertainty. The trade however, is acknowledged to be in a remarkably sound condition, considering the trials which it has passed through. Stocks are not too large at any point, between the mill and the consumer. Prices are showing no tendency to sag, and it is expected that even a further prolonged period of dull trade will have little or no effect upon prices. The trade question seems to be simply one of how long we must wait for a revival. An indication of actual building in some of the larger centres is afforded, by the case of Toronto in which building permits were issued during the first six months of the present year, which amounted to $13,976,140, as compared with $13,584,725 during the corresponding six months of 1913, which was a record year.

In the hardwood trade a fair movement is reported in 1-in. birch, also a small movement in the larger sizes. The different thicknesses of elm are also moving to some extent. The market is very quiet. There is a steady demand for brown ash and it is generally reported that there are no stocks in sight to move.

The local trade in Ottawa is a little better than it has been of late, on account of an improvement in the building trade. The general trade however is still dull, and prices have shown a decline of from one to two dollars, for several grades of pine. Ottawa mills are still troubled for lack of water. Several of the large plants have only sufficient logs to keep the mills going. Activity in connection with the lumber camps is reviving. There will probably be plenty of men for the woods this year, and wages will be about five dollars lower than they were last year.

Eastern Canada

Fairly active business is reported from St. John, N.B. Prices in general are steady, without showing any indication of advance. All the mills in St. John are running full time. A free movement is reported for refuse lumber. Refuse lumber is selling at about $12.00 per M. feet at the mills. Merchantable spruce boards are bringing $16.$16.00 and merchantable hemlock boards planed on one side, $17.00 at the mills. Prices of English deals in England are reported to be a little lower, but this is not affecting sellers or shippers in New Brunswick to any great extent, as most of their orders have been placed well in advance. No change is reported in the American market. Fair business is reported by some shippers who sold ahead, but those who have to sell on the present market are finding it difficult to get profitable prices. Lath continue steady at about $3.00 per thousand on seller's wharf. St. John shingles continue quiet for the high and low grades, but second clears are selling rapidly. A drop is reported in the price of hardwood deals, and many cuts are still said to remain to be shipped. The box trade is very quiet.

There is nothing new to report in lumber market conditions in Montreal. Buyers are only ordering what they require immediately. Large consumers, such as railway car shops, are purchasing very little stock. Sash and door factories are not receiving anything like a normal quantity of orders. Exports to Great Britain are scarce, as stocks of white pine on the other side are large.

The regular base quotation for spruce at Boston is $23.50 with some business at $23. Random is quieter, present prices are: 2/3, $20.50 to $21.00; 2/4, $21.50 to $22.00; 2/5, 2/6 and 2/7, $20.00 to $21.00; 2/8 $22.00 to $22.50; 2/10, $23.50 to $24.00; 2/12, $24.00 to $24.50.

The movement in spruce boards is quite small, the top price for random boards 5-in. and up wide, 8 ft. and up long planed one side, is $22.00. Some fair boards are selling at $20.50. There is a fair demand in Boston for good lath. The best 1⅝-in. bring $4.10, although a few bids for $4.05 and $4.00 are reported as having been accepted.

The usual quotations for 1½-in. is $3.75, but there are some transactions at $3.70 and some at $3.80. The demand for shingles is good, with white cedar extras selling well at $3.50 and some choice brands at $3.65. Clears are selling at a range between $2.85 and $3.05, and second clears at $2.75 to $2.80.

Great Britain

The Board of Trade Returns for the first six months of 1914 shows that there has been a decrease in imports into Great Britain of £2,862,710, and in the exports of £1,598,197, as compared with the record half year of 1913. A comparison with the same period in 1912 which was a more normal year however, shows that the trade for the present year has been extraordinarily good. The 1914 figures for January to June show an increase in the imports of £22,000,000, as compared with the corresponding period in 1912, and an increase of £30,000,000 in the exports. Imports of hewn timber from Canada during the six months were valued at £84,579, as compared with £86,105 in the first six months of 1913.

The trade in London continues quite unsettled. The demand is quite up to the average, but everyone seems to report very little business done. The deliveries at London docks for the week ending July 4th amounted to 11,832 standards, as compared with 5,229 in the corresponding week of 1913. At Foy, Morgan & Company's recent auction sale 3 x 9 in. first Quebec spruce was sold at £14 15s.; 8 in. £12 10s; 7 in., £12; 3 x 9 in. second Quebec spruce £11 15s.; 3 x 7 in. second £9 10s.; 3 x 9 in. fourth Quebec £10 and £9 15s., and fifth £9.

Nothing of importance has developed in the soft wood trade at Liverpool. A fair sized business is in progress in some branches. The c.i.f. market for spruce is quiet, and the market appears to be more than amply supplied for some time to come. Demand is dull. The large quantity of spruce now on the quays especially at Manchester has brought about the usual result, and the export field is anything but firm. Consumers seem to be satisfied with buying for immediate requirements and speculation is absent. The Timber Trades Journal in a recent issue says:—"Even the higher grades such as Miramichi are not realizing a profit on cost, notwithstanding the fact that they cannot now be purchased at within a trifle of the prices realized earlier. The only size of which there appears to be any scarcity is 2½ x 7. Scantlings, which are usually very much in request, there is very little call for, thus providing to a great extent the position of the building trade. We have not heard of any cargo transactions this week from New Brunswick or Nova Scotia to arrive, and under the present conditions it appears as if they would be difficult to make."

The c.i.f. value of birch shows no change, and business is rather quiet. Fairly reasonable prices have been secured for a few recent contracts for log timber. Canadian pine deals are unchanged. Reports from Manchester state that spruce deals are weaker and the demand is poor.

United States

Reports upon business conditions in United States indicate that the extraordinary crop estimates are continuing to have a beneficial effect upon trade. It is generally believed that if the Government preliminary reports are followed by equally satisfactory ones, trade conditions will be certain to improve. Travellers in the central west report that a heavy volume of business is to be expected in the fall. The most satisfactory indication of improvement is the fact that the Pullman Company, which laid off its men last spring, is now employing ten thousand men against a normal staff of thirteen thousand. Freight car shops are busy once more and are increasing their staffs. Reports point to a certainty that the railroad companies will have sufficient business in the fall to tax their capacity. This means that new equipment and repairs to old equipment will be required. Under these conditions steady growth of trade is expected during the next six months.

Manufacturers of southern pine are still holding to the recent price advance, and are expecting, in the fall, to recover any loss of business resulting from the present firm prices.

Better business conditions are reported on the Pacific Coast, and retailers in the middle states are placing orders in anticipation of a good fall trade. The prices, although still unsatisfactory are from fifty cents to one dollar higher than they were two weeks ago. Red cedar shingles are firm at $1.60 for stars, and $1.90 for clears. Sugar pine and white pine mills are in the middle of their selling season, and report eastern shipments going forward without any great trouble from car shortage. The northern pine trade shows a steady improvement, and the manufacturers are expecting a revival of business from now on. Hemlock manufacturers expect heavy business in the

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

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View of Mills in Sarnia.

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Large timbers cut to order, any length up to 60 feet, from Pine and B.C. Fir.

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fall, as Wisconsin, Michigan, Minnesota, and Illinois are all certain of big crops.

Piece stuff and boards are bringing $17.00 and $21.00 in the Saginaw Valley. Hemlock is more active in the east on account of improvement in the suburban building situation.

Hardwoods show no important change. Consuming factories are buying only for their immediate requirements. There is a good movement in quartered oak at steady prices. In the northern hardwood list the demand is not heavy but the situation seems to be well in hand with prices firm.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Ottawa Trade Finds Demand Dull

Ottawa, July 23 (Special to the Canada Lumberman): On account of a renewed activity in the building trade the lumber business locally is fairly brisk, but generally things are quiet. Owing to the lack of demand there has been a falling off in the prices in several grades of pine during the last two weeks. Pine good strips, 1-in., formerly $40 to $42 are now $38 to $40. Pine good strips, 1¼ and 1½ ins., formerly $52 to $54, are now selling at $50 to $52. Pine good shorts, 1 in x 7 in., and up, which were $42 to $44, can now be bought for $40 to $42 and the same grade, 1 in. x 4 in., to 6 in., have fallen from $32 to $35 to $30 to $33. Pine No. 1 dressing shorts, which for some time past brought $22 to $26, are listed at $22 to $24; Pine s.c., 12 ft. to 16 ft. formerly $26 to $27 now sell at $25 to $26. Pine s.c., and better shorts 1 x 5 in., formerly $21 to $22, are now $20 to $21. Pine s.c., and better shorts, 1 x 6 in., formerly $21 to $22 are now $20 to $21. Pine s.c., shorts, 6-11 ft. 1 x 10 in., formerly $24 to $25, are now $23 to $24.

Operations in the saw mills throughout the Ottawa district are still more or less handicapped by lack of water and it is likely that the cut this year will be considerably lower than it was in 1913. The Colonial Lumber Company, of Pembroke, are getting just about enough logs down to keep the mill going, and the Pembroke Lumber Company is in the same plight. J. R. Booth's cut will of course be substantially less this season, owing to the breaking of a flume wall about a month ago, which put the saw mills out of business as well as some of the other parts of the plant. The necessary repairs were completed and operations were to be resumed again by the 27th.

By the 15th of August most of the lumber camps will be in operation along and adjacent to the Ottawa River and its tributaries. The advance parties of handymen left to get the camps in readiness for the main force of lumberjacks about a week ago. Some firms will operate several additional camps this year so that they can cut into logs the timber blown down by the hurricane that swept through the country last fall. Wages in the camps will, it is said, be considerably less than last year. Leading lumbermen of this district have arranged to meet on Friday to discuss the scale of wages to be paid. Report has it that the scale will range from $20 to $30 per month with board, compared with $25 to $35 a year ago. At the reduced rate there will be no dearth of men. For several months past Ottawa has been literally flooded with hundreds of unemployed men and the opening of the camps is being hailed with delight by those among the workless who really want to work and have had some experience in the bush.

Word has been received by J. R. Booth and Shepard and Morse that forest fires are raging near Silver Center, Ont., and endangering valuable limits owned by the two firms mentioned. If rain comes soon and the wind does not rise the fire-fighters say they will be able to hold the fires in check.

Many Logs Stranded by Break in Dam

As a result of the break in the Conservation Dam at Lakes Temiskaming and Kippewa, a few weeks ago, great quantities of logs have been left high and dry on the shores of the lakes and the work of floating them has now been commenced. For this purpose hundreds of unemployed men have been sent up from Ottawa to work for a firm of government contractors, to which has been given the contract for clearing the logs into the water.

Application has been made to the Department of Public Works at Ottawa by the Lake of the Woods Boom Company for approval of the plans and site of a boom to be constructed at the head of the Rainy River opposite the Wild Lands Reserve. The boom is to be used for driving logs to the mills along the Rainy River.

About a week ago the main pumps at the waterworks in Ottawa broke down and created a serious situation. Mr. J. R. Booth, the veteran lumberman relieved a good deal of anxiety when he wrote to Mayor McVeity stating that in case of fire he would close down his whole plant temporarily and thus enable the city to obtain an extra supply of four million gallons of water. Another example of Mr. Booth's generosity was manifested a few days ago. John Castaigne, a blind man, has for the past five years conducted a small restaurant on the Booth property. Changes at the plant required Castaigne to move. Realizing that the blind man would suffer a loss Mr. Booth had a much larger establishment built for him in a more convenient place and also sent a gang of men to help Castaigne move into his new quarters.

The Estate James Davidson has just received a small order from the Dominion Government to which considerable interest attaches, the order being for 24 oak toboggans which will be used by the party of Royal Northwest Mounted Police who will start shortly to hunt for the Eskimos who murdered Street and Radford, the two white hunters and engineers.

St. John Markets Fairly Active

St. John, N.B., July 20th (Special to the Canada Lumberman): During the last month business has been fairly active in the local market. Prices have been maintained, but no advances can be said to have taken place. No great quantity of stocks are coming into St. John for local consumption outside of the regular stock being manufactured at the mills. All the mills are running full time, with abundance of help and no labor troubles. Refuse lumber of all kinds has been moving very freely, also merchantable spruce boards, and merchantable hemlock boards, both grades being well used up to saws. Prices for refuse lumber run about $12 per M. at the mills here. Merchantable spruce boards bring $16 per M, and merchantable hemlock boards planed one side $17 per M. at the mills. As we have stated before, about all the cuts of English deals (and all but two mills are sawing them) have been sold ahead at good prices, and while the prices in England are not quite so good, yet this will hardly be felt by the sellers or shippers here, as it was well placed ahead. Shipments from St. John during the past month have not been heavy, but as a good many sailings usually take place during late July and through August, the shippers will probably clean up a good many deals during that time. Geo. McKean is loading a steamer with about three million feet for Manchester; Mackay and Moore, are both loading some stock in steamers and sailing vessels.

In the American market, very little, if any, change has taken place. Some shippers who sold ahead, report fair business, but those who have to sell on the present market report it hard to find buyers at profitable prices. It is said that cargoes running to average 16 feet or thereabouts, a good line of 2 x 8, will net the seller about $16.50 to $17 per M. here. Very few cargoes are being sent forward. The only two mills sawing for the American market at this port are Messrs. Stetson Cutler Company's, and they are not shipping to any great extent. Laths are the only commodity in the lumber market in the United States which seem to hold their own. The price for laths has held steady to date at about $3 per M. on seller's wharf here. A good many of the laths being shipped from here are going to Philadelphia via the Manchester steamers.

Shingles remain quiet, with no demand for the high grades, or the extra low grade, but about all the second clears are taken up from the mills about as fast as sawn.

Freights for ocean trade are about 35 shillings to Liverpool and Manchester from here. Whether there will be a further change in freights remains to be seen. Some people claim that large quantities of grain remain on this side to be shipped over, which, if it is so, will have a tendency to put in use a good many more steamers, and the lumber freights may advance. In the coastwise trade to New York, freights remain at about $2.75, and it is very hard for vessel owners, of sailers especially, to find freights. As very few shippers wish to put their lumber on the present market, the reason for low freights can be well seen.

The hardwood deal trade from St. John has had quite a setback, as all through the winter and early spring prices for this kind of wood were very high, rotary cuts being sold at about $17.50 per M. for specifications running 9 ft. and up long, 3 x 6 and up wide. But during the last month the price has taken a fall and many cuts yet remain to be shipped, and unless contracted for will have to be sold at unprofitable prices.

The box trade still remains in a sleeping condition. No run of fish has yet taken place so as to give an impetus to this trade.

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Montreal Markets Unchanged

Montreal, July 27th (Special to the Canada Lumberman): No alteration of any importance has occurred in market conditions since the last report. Orders are only of moderate volume, buyers being disinclined to purchase, except for immediate requirements. The slackness in such large plants as the Angus shops of the Canadian Pacific Railway has affected local wholesale lumbermen who sell to the large corporations which are heavy consumers of lumber. Retail yards report that trade is slow, and as there is little prospect of a revival in building, the outlook is not particularly bright.

The better grades of pine continue to be in poor demand. Prices too, are inclined to give way in view of the limited market for this description of lumber. The high value to which the good grades of pine reached have brought into use many other kinds of lumber as substitutes, and this has had a depressing influence on prices. With rare exceptions, the sash and door factories are short of orders.

Exports to Great Britain exhibit the same unsatisfactory conditions. Stocks of white pine on the other side are very large, and under these circumstances exporters are holding their hands. The competition of Baltic pine with Canadian red pine is as keen as ever, and tends to restrict shipments from this port.

The ground wood market is steady. There is however, not a great deal of business passing, especially in the United States, where the demand for wood paper is quiet. Canadian trade for news print is satisfactory. Although chemical pulp is selling well, prices are low. The immediate outlook is fairly good.

Glasgow Quarterly Report

Edmiston & Mitchells', Glasgow, in their qaurterly timber circular under date of July 1st, say: Trading conditions in this district during the past quarter have proved of a most disappointing nature, the demands in evidence, apart from those emanating from the shipbuilding industry, having been consistently dull and inextensive. The continued activity in the shipyards was responsible for a steady flow of orders from that source, in which teak and pitch pine predominated, but the other wood-consuming industries have all yielded demands of more or less meagre proportions. A cause which had an undoubtedly adverse influence on the consumption was the fact that a good deal of uncertainty has existed amongst buyers as to the probable course of values, and for this reason they have shown a strong inclination to keep down their stocks as much as possible, and hand-to-mouth buying has therefore been unusually prevalent.

Values generally have displayed a rather easier tendency, although, in view of the apathetic demands in evidence, they have really kept up surprisingly, a fact due in large measure to the lightness of imports.

The Clyde Shipbuilding returns show that the output for the first six months of the year amounted to 117 vessels of 275,128 tons, as compared with 91 vessels of 343,312 tons in the same period last year, and 143 vessels of 297,599 tons for the first six months in 1912. There is still a large amount of work on hand, and most of the yards are assured of steady employment for some time to come, but there is a regrettable falling off in the new orders being placed.

Imports from British North America

Yellow pine logs.—A few sales transpired during the past three months, although at prices considerably under the import cost. Stocks are still heavy, however, being 2,402 loads, equivalent to 18 months' requirements at the present rate of consumption.

Oak logs.—A moderate demand has existed for 1st class timber of good average dimensions, and there is little wood of this description remaining in first hands now. There is still a good deal of small and 2nd quality timber on hand, which is moving very slowly.

Elm logs.—There was some enquiry for large 1st class rock elm for shipbuilding purposes, a few sales being reported at firm prices, but there has been little demand otherwise. The stock now stands at 1,113 loads, and averages 40 cubic feet per log.

Birch.—Logs.—Arrivals were moderate in extent and consisted in large part of 2nd quality wood, but the whole was sold on ex quay terms. There is a brisk demand for 1st class logs of good average, prices of which are meantime firm. Planks.—A few small shipments have cone forward and were readily sold at firm prices. A fair enquiry exists, and there is room for a few consignments.

Yellow pine deals and sidings.—The demand all over has been quiet and sales mostly of a retail character. Shipbuilding requirements have no doubt absorbed a moderate quantity of sidings and the lower qualities of deals, but this accounted for the bulk of the movement. Values have ruled rather easier.

Spruce deals.—Arrivals were light and stocks are now well reduced. Sizes 8-inch and wider have met with fair request, but the narrower widths have proved slow of sale. Values are easier.

The demand for cedar logs in British Columbia has improved greatly of late and prices have gone as high as $13.00 in some instances. This price, of course, is for specially good booms. The average price is between $10.00 and $11.00. Cedar shingles and boards are quoted at $4.75 to $5.00. The supply of logs was plentiful, the cut in May having been 59,000,000 feet and in June, 60,000,000 feet. The demand is not very strong, and sum of the camps will reduce their operations in the near future. Prices have fallen, logs are $6, $8 and $10.00 for camp's run. The domestic lumber trade is reported to be fairly extensive, but prices are not improving.

Liverpool and Manchester Stocks

H. W. Lightburne & Company, Liverpool, England, report the import, consumption and stocks at Liverpool and Manchester for the month ending June 30th as follows:—

Spruce and Birch
Month Ending 30th June, 1914
Liverpool

	Import			Consumption			Stock		
	1912.	1913.	1914.	1912.	1913.	1914.	1912.	1913.	1914.
N.B. & N.S. Spruce & Pine, Stds. ..	12,540	7,380	4,910	3,640	4,770	2,500	11,610	6,570	8,070
Birch Logs, Loads	1,040	240	340	600	420	300	1,240	600	680
Birch Planks, Stds.	988	442	267	546	521	339	928	636	369
Manchester									
Spruce, Stds.	9,430	7,250	12,320	4,320	3,560	3,630	11,640	8,400	17,200
Birch Logs, Loads	840	980	840	420	920	220	720	540	1,160
Birch Planks, Stds.	406	145	230	48	79	97	564	485	630

Stocks in Manchester and Liverpool Combined

	1910.	1911.	1912.	1913.	1914.	
Spruce						
Manchester..	7,070	9,330	11,640	8,400	17,200	
Liverpool	7,170	6,500	11,610	6,570	8,070	
	14,240	15,830	23,250	14,970	25,270	Stds.
Birch Logs						
Manchester.	340	300	720	540	1,160	
Liverpool	420	1,340	1,240	600	680	
	760	1,640	1,960	1,140	1,840	Loads.
Birch Planks						
Manchester	746	176	564	485	630	
Liverpool.	255	200	928	636	369	
	1,001	376	1,492	1,121	999	Stds.

Glasgow Market Still Quiet

Calder, Henderson & Livingston, Glasgow, in their quarterly timber report under date of July 1st, include the following:—

Canada—St. Lawrence, Yellow pine—Waney.—No import. Although some slight improvement is noticeable in the consumption the position still remains very unsatisfactory. The stock, principally composed of deckwood, is far too heavy, while values are weak, and the demand is stagnant and not likely to improve under the quieter conditions now ruling in shipbuilding. Orders for first-class shipbuilding wood of large average were keenly competed for and sales were made around 4/- to 4/3 per c.ft. Second class wood of ordinary average was sold at from 2/- to 2/3 per c.ft., and the stock is now cleared. Square.—A small lot of mixed quality was disposed of at 2/3 per c.ft.

Birch—logs.—Arrivals of first class were moderate and came forward principally in fulfilment of contracts. Consigned parcels met with a fair demand and 16-inch average was sold around 2/- to 2/1 per c.ft. A fair quantity of second class wood was disposed at from 16d. to 19d. for 15 to 17-inch average. The stock is light and the figures appearing in the tables represent chiefly Round logs stored on account of a large consumer. There is a fair inquiry for first class logs 16-inch and up average. Planks.—Some contracting for a fair quantity has taken place, the price it is reported being 19½d. per c.ft. ex quay. Consigned parcels have come forward sparingly and brought 19½d. to 20d. per c.ft. Stocks are moderate and are in second hands. The demand is not brisk.

Deals, battens and boards.—The quantity imported has been very moderate, but has more than met the demand which has been slow. Stocks of first and second qualities are light, while third and fourth qualities though not heavy are ample at present. Values on the whole are about steady. A fair quantity of good pine sidings has been moved, but the stocks are still to the heavy side and values are easy, especially for narrow specification.

Pine—Firsts,—Broad deals were only occasionally asked for and sold at from £39 to £41 for about 13 to 14-inch average. Regulars were enquired for, but no transactions took place owing to the want of stock. Undersizes brought from £28 5s. to £29 10s. Good sidings sold from £30 15s. to £31 10s. per St. Petersburg Standard for 12 to 13-inch average. Seconds.—Enquiries were few. Deals 12-inch and up were sold at from £30 5s. to £31 5s. Of Regulars no sales came under notice. Undersizes fetched from £19 5s. to £20 10s. per St. Petersburg Standard. Thirds.—A moderate quantity was moved. Deals 12-inch and up sold at from £19 5s. to £19 15s. Regulars were disposed of at from £17 15s. to £18 5s. Values are inclined now to be a little easier. Undersizes brought from £13 15s. to £14 10s. per St. Petersburg Standard. Fourths.—All specifications were neglected

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and present quotations are nominally around £13 to £13 10s. for Deals 12-inch and up, £12 15s. to £13 for Regulars, and £10 5s. to £11 per St. Petersburg Standard for Undersizes.

Red pine.—A small consignment of Deals 4 to 6 inches thick x 9 and 11 inches broad brought £13 to £13 15s. per St. Petersburg Standard. There is only a small stock, but the demand is almost nil.

Spruce.—The demand has been dull and there was only a moderate consumption. Enquiries have been chiefly for 9-inch and up. Values on the whole have been fairly steady. The stock is not heavy and is held chiefly by merchants.

New Brunswick and Nova Scotia Birch—Logs.—A small quantity came forward on contract and went direct into consumption. Stocks are very light and enquiries are not numerous. Values are steady. Planks.—Were moderately imported, principally on contract. The demand is quiet. The stock is held on merchants' account.

Pine.—Some small consignments came forward, but owing to the poor demand went to store.

Spruce.—Stocks are not heavy, but are sufficient for the exceedingly poor enquiry. The sizes principally asked for were of the wider specifications and these sizes are now exhausted, but the narrower deals were slow to move. Values drooped but are now about steady at a lower level.

Liverpool Trade Disappointing

Farnworth & Jardine, Liverpool, England, in their monthly wood circular under date of July 1st, state that the demand during the previous month was quiet and business was disappointing. In regard to Canadian woods they report as follows:—

Pine Timber.—The market shows no change. Waney pine, 1st class.—There has been a considerable import to Manchester, deliveries have been small, the demand is dull, and stocks are adequate. 2nd class.—Consumption has been very small, and there is little enquiry; prices unchanged. Red pine.—Practically no movement to report. Oak.—The light arrivals have been to Manchester, against contract; consumption about kept pace, and prices are steady. Elm.—Arrivals have been entirely against contracts; deliveries have been merely nominal; the demand is quiet, but prices remain firm. Pine deals—A moderate import to both Manchester and Liverpool; consumption, though larger than last month, is still rather small, and stocks are heavy; prices show no change. Red pine deals.—The import exceeded the consumption, and the market remains dull.

New Brunswick and Nova Scotia spruce and pine deals.—The import to the Mersey (including Manchester) was heavy, amounting to 17,230 stds., as against 15,030 stds. for June 1913, about 70 per cent going to Manchester; the consumption was disappointing and below that of the corresponding month last year; stocks are too large, amounting to 26,070 stds., and sales are difficult, but prices keep fairly steady. Pine deals.—The import has been on merchants' account; there is fair enquiry at steady prices.

Birch.—Logs—Arrivals amounted to 59,000 feet, practically all from Quebec; deliveries satisfactory in Liverpool, but disappointing in Manchester; stocks are fairly moderate, and prices remain firm. Planks.—For the time of year the import has been small; deliveries have been fair; stocks show a slight increase, but prices no change.

British Columbian and Oregon pine.—12,000 cubic feet imported; consumption shows some improvement, but stocks are still large, and prices easier.

In their quotations of current prices they report as follows:—

From British America

		£	s	d		£	s	d
Yellow Pine Timber—								
Quebec, square wood	per cubic foot	0	2	9	at	0	4	0
Waney board, square wood	"	0	3	0	at	0	5	6
St. John, 18-in. average	"	0	2	6	at	0	3	6
Red Pine	"	0	2	2	at	0	2	9
Oak—1st quality	"	0	3	6	at	0	4	0
2nd quality	"	0	2	6	at	0	3	3
Elm	"	0	3	6	at	0	5	6
Ash	"	0	1	8	at	0	3	0
Birch, St. John	"	0	1	7	at	0	2	2
Quebec	"	0	1	8	at	0	2	10
Nova Scotia, etc	"	0	1	3	at	0	1	10
Birch Planks	"	0	1	0	at	0	1	6
Deals, Quebec, Yellow	per standard							
1st quality	"	27	0	0	at	43	0	0
2nd quality	"	21	0	0	at	30	10	0
3rd quality	"	13	10	0	at	18	0	0
Deals, Spruce—								
St. John, Miramichi, etc	"	9	0	0	at	9	10	0
Nova Scotia, etc.	"	0	1	3	at	0	1	10
Boards, Spruce, etc.	"	8	5	0	at	9	5	0

The scaling operations of the Forest Branch of the Department of Lands of British Columbia show that logging operations in the province are improving. Since May the Department has been scaling at the rate of 60,000,000 feet per month.

London's June Imports

Churchill & Sim, London, Eng., in their monthly wood circular under date of July 2nd, report importations from the St. Lawrence during June as follows:—

Pine deals, 112,000 pieces, against 103,000 pieces in 1913.
Spruce deals, 82,000 pieces, against 118,000 pieces in 1913.
Birch planks, 19,000 pieces, against 48,000 pieces in 1913.

and from New Brunswick—

Pine deals, 3,000 pieces, against nil pieces in 1913.
Spruce deals, 128,000 pieces, against 267,000 pieces in 1913.
Birch planks, 266,000 pieces, against 235,000 pieces in 1913.

Importation of pine and spruce has been small, and prices for pine deals are unchanged, good parcels still commanding high figures, but inferior shipments are difficult to dispose of, except at very low rates. Spruce has arrived sparingly and the available stock is lower, but prices are kept down by competing shipments from the north of Europe. Birch planks are heavy in stock, but fair prices are still obtainable, and the supply ahead looks smaller. There is no change to record in the prices of Canadian hardwoods, the demand for which leaves much to be desired.

Glasgow Trade Still Quiet

Business in the local timber trade at Glasgow, continues to be far from brisk, though there is a slight indication of improvement this month. In the case of ship building requirements the demand has of late been mostly for teak and pitch pine, of which considerable sales have been reported. Inquiries for house building material are disappointing from a timber point of view. In the case of Canadian pine, the demand is still quiet, notwithstanding the fact that prices are at a more attractive level than they have been for years. The market for spruce shows little improvement, the feeling being that prices will not be maintained. Furniture woods are in moderate demand, and prices seem to be firm.—Trade and Commerce report.

Uses of Redwood

California numbers redwood (Sequoia sempervirens) as one of its most valuable assets. This wood, which is found in no other part of the world, occupies a strip of country 20 to 40 miles wide and 50 miles long in the northwestern section of California, extending a short distance over the line into Oregon. The growth is so dense and the trees so large that the supply of standing timber is estimated at approximately 75,000,000,000 feet. The redwood grows to a greater height than any other American tree, averaging on the slopes 225 feet in height and 10 feet in diameter, while on the flats under better conditions, it grows to 350 feet in height with a diameter of 20 feet. Most of the redwoods cut are from 400 to 800 years old. The oldest tree yet found began life 1,370 years ago. The redwood when normal, has a straight, slightly tapered bole, clear for more than 100 feet and a crown of horizontal branches that may occupy one-third to one-half of its total length. In a virgin redwood forest the large trees outnumber the small ones by at least 70 per cent. The average yield to the acre is about 85,000 feet.

The present production is about 550,000,000 feet annually, and allowing for the natural increase that has and will take place when the merits of this wood become widely known, there is over a century's supply in sight.

Redwood should and is now about to take the place to which it is entitled by its indisputable and varied utility. It possesses qualities which fit it for many uses. In color it shades from light cherry to dark mahogany. Its grain is unusually fine, straight and even. Its weight is light and its consistency firm but soft. It is easily worked, takes a beautiful polish and is very durable. It resists decay so well that trees which have laid 500 years in the forest have been sent to the mill and sawed into lumber. The wood is without resin; therefore it ignites slowly and offers a strong resistance to fire. The enemies of the redwood are few and it suffers from them less than other trees. It is immune from the ravages of insects, especially white ants, because of an acid element it contains and it possesses lasting qualities scarcely equalled by any other wood.

Redwood lumber, when properly seasoned, does not change; in other words, does not shrink or swell like some woods. Its use is almost unlimited. It finds a ready market for railway construction, its value in lasting qualities as a railway tie or sleeper being undisputed. Redwood ties have been known to last longer than thirty years. Architects and builders agree that the finest results can be obtained from the use of redwood either in its native or highly polished surface, and owing to this fact it finds extensive use both as an interior and exterior finish. It works easily and holds paint well. It is free from pitch and does not shrink and is adaptable to all kinds of pattern work.

Silo manufacturers are becoming converted to the use of redwood in larger numbers every year. Many water pipe lines are used in the West and redwood staves enter largely into their manufacture.

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This wood is used extensively for railroad water tanks and also for wine tanks, tanners' vats, brewers' tanks, cyanide plants, acid tanks and dyeing vats. It is also used extensively for car roofing and car siding.

Redwood is difficult to ignite and when on fire burns slowly and is easily extinguished. The chief of the San Francisco fire department is authority for the statement that during his twenty-one years of experience in that city the results of his observation convince him that under similar conditions of heat exposure redwood lumber ignites less easily and burns more slowly than pine or other kinds of resinous and soft building woods with which he is familiar. He is also of the opinion that but for the fact that many buildings of frame construction in San Francisco sheathed with redwood, the burned area during the San Francisco fire would have been greatly extended.

Under the stump of a spruce tree six and one-half feet in diameter recently was found a fallen redwood tree. The rings of the spruce tree indicated that it was about 600 years old and the champions of redwood point to the fact that the redwood tree, after having lain under the spruce for 600 years, was in a sound condition.—American Lumberman.

West Indian Market for Canadian Lumber

A report upon the lumber trade of the West Indies has been sent to the Department of Trade and Commerce by Mr. E. H. S. Flood, Trade Commissioner at Barbados, in the course of which he says:

"After the opening of the Panama Canal, shippers of lumber in British Columbia will have an opportunity to compete for part of the trade of the West Indies. Up to the present time no lumber from the Pacific coast has been imported, except a small shipment of shingles which found its way into Barbados a few years ago. Interest has been expressed by dealers here on this subject, and inquiries have been made in regard to the characteristics of Douglas fir and western pine and spruce, and as to their suitability for the tropics as compared with the pine and spruce from Eastern Canada and the pitch pine now imported from the United States. To satisfy these inquiries, a request has been made to the Forestry Department of British Columbia to furnish samples of the different varieties of lumber that are commercially important and suitable for export. These samples will be shown to the trade, and afterwards sent to Trinidad, Jamaica, British Guiana and the Northern Islands. In this way an opportunity will be afforded for a comparison of British Columbia lumber with that now imported, and will stimulate the interest now taken, and assist in preparing for an early trial shipment as soon as intercourse is established through the canal.

Value of the Trade

The requirements of the British West India colonies for lumber, shingles, shooks, staves and puncheons, have an annual average value of about £40,000. The import each year has approximated very closely to this figure, the fluctuations being small. Considering the large amount, value and variety of lumber required, the trade must be therefore considered as a steady one. These colonies, with the exception of Jamaica, give a preference to Canadian lumber.

Of the foreign colonies of the Caribbean that do not give a preference to Canada, or that have a preferential arrangement with other countries, the largest importer of lumber is Cuba, the annual value of whose import is about £800,000. The next in importance is Porto Rico whose import amounts to upwards of £400,000. The import into both these islands is of the same general character and variety as that in the British West Indies. The whole of the West Indies, British as well as foreign, have therefore a total import of lumber of over a million and a half sterling, of which Canada is supplying under £200,000. It is apparent therefore that British Columbia would have a large territory to exploit, provided the quality of its lumber was suited to the needs of these countries.

Present Prices of Lumber c.i.f. in the West Indies

Advices as to the prices of Nova Scotia pine are to the effect that cargoes are now on the way to Barbados at $25.50 c.i.f. for merchantable, and $20.50 for second quality. Recent quotations for pitch pine place the price at $29 to $31 c.i.f. according to widths and lengths. Scantling at $2 less per M. The price of this lumber varies considerably from time to time, and at the beginning of the year prices were for—

All heart pitch pine, 1 x 12	$38.00 c.i.f.
All heart pitch pine, 1 x 10	35.00 c.i.f.
Scantling, all heart	32.00 c.i.f.
Flooring boards, all heart	$30.00 to 32.00 c.i.f.

These high prices were due to the freight rates ruling at the time which have since declined, and the market price of lumber has dropped. Cargoes of spruce of merchantable quality are now quoted at $21 per M. c.i.f.

Staves and Shooks

Staves, shooks and puncheons, taken together, are among the largest items of import, and efforts have been made in the past with apparently some success, to induce Canadian firms in the Eastern Provinces to compete for a share of the trade. At present, nearly all of it is in the hands of the United States. As there is an area in British Columbia that produces oak timber suitable for making staves, it may be well to refer to this industry. The staves that are supplied by the United States are made of oak wood, one inch in thickness, and supplied in the rough. The length of the stave is 44 inches, and the width varies from 2½ to 4½ inches. They are trimmed at the end, grooved, and slightly bent. Thirty of these make a pack, which is sufficient to make a puncheon. There are about 30 superficial feet of oak in each pack. These packs are supplied c.i.f. for a price which varies from $1.85 to $2.05, depending on freights."

Barbados Market Report

S. P. Musson, Son & Company, Barbados, report under date of July 9th as follows:—

Lumberstuffs.—White pine—The Trn. Schr. "Eddie Theirault" arrived on the 26th ult. from Ingram Port, N.S., with 184 m. ft. which had been sold to arrive at $32 for merchantable, and $24.50 for second quality. The 84 m. ft. ex Trn. Schr. "Jeanie A. Pickles" mentioned in our last was sold at $32 and $25 respectively. Spruce.—The Trn. Schr. "Rosalie Belliveau" arrived on the 4th inst. from Belliveau Cove, to our address, with 266 m. ft. which we had sold to arrive at $26.50 for merchantable. Dealers are fairly well supplied for the present. Pitch pine.—No receipts, but supplies are sufficient for present requirements. Shingles.—The only arrival is a cargo of 1,040,000 extra No. 1, ex Schr. "W. C. Silver" which had been sold to arrive sometime ago at $2.55. The lot of 400,000 mentioned in our last, has been disposed of at $2.65. No receipts of Long Gaspe. Shooks.—No arrivals. Wood Hoops.—No receipts.

Annual Consumption of Wood in the United States

Statistics have been compiled by the United States Forest Service which show for the first time precisely how the lumber produced in the country is utilized. About 45 billion feet of lumber of all kinds is the annual production in the United States; of this nearly 25 billion feet, board measure, are further manufactured, the other portion remaining for rough construction lumber and for similar purposes. This is exclusive of that material which reaches its final use in the form of fuel, railroad ties, posts, poles, pulpwood, cooperage,

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Gentlemen:-

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I have always been told that the Canada Lumbermen and Woodworker was an exceptionally high-class medium and I am glad to be able to endorse the paper personally as a splendid periodical through which to reach the lumber trade of this country.

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wood distillates, and the barks and extracts demanded by the tanning industry.

Nearly or quite 100 different woods are used in the United States under their own names, while an unknown number find their way to shops and factories without being identified or separately listed, except under general names. In quantity the softwoods, the needle-leaf or coniferous trees are most important, but there is a greater number of species among the hardwoods, or broad-leaf trees.

More than one-half of the total consists of planing mill products, the largest items of which are flooring, siding, ceiling and finishing. The next industry, in point of quantity used, is the manufacture of boxes and crates. Nearly four times as much wood is demanded by makers of boxes and crates as by the builders of steam and electric cars, which come next, and almost five-fold the amount that goes into furniture, which, in turn, leads vehicle manufacture. Vehicles demand surprisingly large supplies of wood, and much of it must be of a high-class in order to meet requirements for frames, gears, and bodies.

The Human Side of Factory Operation

Although most woodworkers operating large factories and handling large bodies of men realize that the human problem which confronts them is just as difficult as, and much more vital than, the mechanical problems involved in the operation of machines, and the manufacture of raw material into the finished product, it is still true that the human factor is not always given the attention which it deserves, says G. D. Crain, in the Wood-Worker, Indianapolis. The efficiency movement, though ridiculed by some and overpraised by others, undoubtedly has accomplished much good in calling attention to this particular phase of manufacturing. Labor has always been taken for granted. Labor started manufacturing without tools, and as equipment grew better and better, and master and man drifted farther apart through the multiplication of processes and the establishment of larger manufacturing units, the tendency grew to consider the workman rather in connection with the machine than the machine in connection with the workman.

While plants are laid out largely along mechanical lines, and while it is accepted that the top-notch of efficiency cannot be reached unless the machinery is all that it should be, it does not do to conclude that the installation of a high-priced machine is going to solve every problem, unless the right man to handle that machine has been secured, and unless each man is working with, instead of merely at, his machine. Don't take the workman for granted; study him, along with the equipment he must use; only in that way will both deliver the best results.

Attention is sometines called to the difficulties attendant upon the operation of cost systems. It is explained that the men fail to show the proper spirit of co-operation, and instead of making it easy to handle the system they seem to put every obstacle in its way. In some cases it is thrown out without really receiving a fair trial, the manufacturer going back to the old way of estimating, by taking gross costs and doing without costs covering each specific factor involved in the manufacturing operation.

There is only one explanation for this, and that is that the men were not considered when the cost system was discussed; they were again merely taken for granted. Of course, they are being paid by the concern to run the machines, and taking part in the operation to the extent of noting the time required for each kind of work and the amount of material used in each job would not add greatly to their labors. But that doesn't cover the situation fully, by any means.

The employer and employee are working together. They have a mutual object—making a living. The owner of the plant has staked his capital as well as his labor in the business, and failure to succeed means the loss of capital as well as time. The workman who gets his wages from the company is thereby able to pay his living expenses and raise his family in comfort. Both of them find in the continuous and profitable operation of the plant advantages and benefits which can hardly be measured. Therefore it is to the interest of both that they work together to develop the best possible method of conducting the business.

If an explanation along this line were made to the men at the time the cost system was put in there would be comparatively little objection to it. In too many cases, however, the announcement is simply made that each man must make a report covering in detail his day's work. He is given the proper blanks to fill out, and if he does not do so he is considered as not doing his full duty.

From his side of the fence, however, he looks at it as a kind of imposition; or worse, as a reflection upon his ability and integrity as a workman. This is something that some manufacturer fail to take into account; pride of workmanship. The skilled artisan who knows that he does his work well and who works for pleasure of creation entirely apart from the wage connected with it, feels, unless a proper explanation is given, that to check up his work by means of a cost system is to suggest that he has not been giving a full measure of effort and that the company is not altogether satisfied with the results of his toil.

There is no intention to give offense in this way, but that offense is sometimes taken there is no doubt. "They want to see if we've been soldiering," is sometimes the sneering comment which is heard when a cost systen of this kind is put into use without getting the moral support of the workmen. Resentment grows, and, not being eliminated by the simple explanation of why the plan was adopted, it gets the sort of reception which, in many cases, results in the plan being considered a failure, when, in fact, it was not really given the proper kind of trial.

A preliminary to any radical innovation of this kind, which could not possibly be misconstrued, would be to explain the purpose of the system; to show that every man would get credit for good work, whereas under the old system it is sometimes impossible to know who is giving the best results, and that those who turned out the best work could be sure of getting increased pay. If these and other obvious benefits from the standpoint of the workman, growing out of the use of a modern cost system, were explained, there would be no trouble about getting the co-operation of the men in the factory. In other words, study the human factor as well as the mathematical quantities involved.

Every workman who does his best to operate his machine properly and to earn the money he finds in his pay envelope on Saturday night would, at first blush, feel resentment at the harsh criticism of a superior. It is the natural thing for a rebuke which the recipient feels is not entirely merited, to have exactly the opposite effect from that intended. Hence the careless or rough foreman, who is looking only at the work and doesn't see the man, is likely to cause more trouble through an ill-timed criticism or a brusque comment than he has any conception of.

Foremen who get the best results are those who have the esteem and respect of their men; and they cannot secure this if they are constantly nagging their men or if they make their suggestions and criticisms in any way but a kindly one. "Bawling out" a man before his fellows, no matter how well-deserved the correction, is not going to do any body any good. It may give the foreman a little elation, as some men in similar positions love to exercise their authority and make the men under them feel "cheap;" but if the good of the factory is to be considered, it must be conceded that this is not the way to protect it.

By far the better plan is to approach a workman quietly, and, without raising the voice or showing feeling of any kind, point out the defect in the work, or take the machine and demonstrate just how it is to be done. Shouting angrily at the workman can only be expected to arouse anger on his part, so that instead of his considering the criticism judicially, he simply nurses his resentment and thinks of a possible opportunity to exhibit it in the most effective way possible.

The foreman of the mailing department of a big box factory in the middle west, who has under him, for the nost part, young men from eighteen to twenty years of age, is almost idolized by the lads, because, as they say, "he never gets mad." On the other hand, he is constantly cheering them on to better work by a timely word of praise or suggestion. He never criticises merely for the sake of finding fault, but always for the good of the man and the factory. And the beauty about it is that he makes them see it. He considers them as well as himself and the company, and doesn't let his duty to his employer interfere with his duty to the men. For that reason his department is about the best run in the factory, and there is never any trouble about the character of the work.

Discipline in the factory is, of course, a major element of the human factor. The superintendent should be supreme, yet each foreman should have complete authority in his own domain. The owner who seeks to interfere in the conduct of the manufacturing department, and to reduce the authority of his superintendent, is forgetting the fact that the superintendent is hired to look after that and is responsible for results, and that, if he is not given full sway, he cannot be expected to stand responsible for the success or failure of his department. So in connection with each department. The superintendent should not go over the foreman's head to deal with a workman, but the proper heads should be consulted, to the end that the factory shall recognize the divisions of authority and shall respect the discipline that has been established.

By giving attention to the human element and studying it just as carefully as the mechanical features, most owners of woodworking plants can raise the efficiency of their factories to a considerable degree.

A new means of transporting western lumber, grain and coal is planned in the survey of the Saskatchewan River, to be completed this fall by the public works department. The work has been going on for three years and the idea is to have a 5-foot waterway from the Rockies to Winnipeg. This would be sufficient for barge traffic. The cost is roughly estimated at $15,000,000 and would be reduced by valuable horsepowers to be developed along the route.

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EDGINGS

Ontario

The Riordon Pulp and Paper Company are installing a drying machine at their Hawkesbury mill. The machine will have a capacity of 35 tons per day.

The logs of the Cleveland-Sarnia Saw Mills Limited are now coming in fast from the north, both by water and by rail and the mill is sawing at the rate of about 35,000 feet per day.

A small portable sawmill, operated by H. Monteith, about three miles out of Parry Sound, Ont., was destroyed by fire recently. Mr. Monteith is putting in a new mill to cut out the balance of his stock.

The sawmill belonging to Schultz Bros. & Company, Limited, Albion Street, Brantford, Ont., was recently destroyed by fire. The loss amounted to $5,000, which was covered by insurance. Some of the machinery was also destroyed.

The log drives of the Peterboro Lumber Company, Peterboro, Ont., which have been held back by low water, causing the mill to shut down for about ten days, commenced arriving about the middle of July and enabled the company to commence operations again. The drive for the mill of the Estate of Alfred McDonald, was reported to be coming out immediately behind those of the Peterboro Lumber Company.

A general meeting of the first mortgage bondholders of the Upper Fraser Lumber Company, Limited, will be held at the office of the company, 526 Board of Trade Building, Montreal, on August 3rd, for the purpose of considering a transfer of all the mortgage premises to Timber Properties and Securities Limited, for a consideration of $1,660,000 par value of preferred shares and $570,000 par value of common shares of the Upper Fraser Lumber Company, Limited.

Eastern Canada

The Harbor Commissioners of Montreal have awarded a contract for oak timbers to James Shepherd & Sons, Sorel, P.Q.

R. & T. Ritchie, Aylmer, P.Q., whose large sawmill was recently destroyed by fire, are actively engaged in rebuilding the mill. The new buildings will probably be completed by the end of December and will cost about $50,000.

The International Freehold Pulp Wood Company, Limited, has been incorporated with capital of $50,000, with head office at New Carlisle, Que. The provisional directors are J. S. Gordon and J. B. S. Mitchell, both of New Carlisle, Que.

A commencement has been made with the construction of the pulp mill of the Bathurst Lumber Company, Bathurst, N.B. The mill will be electrically lighted and driven, and contracts have been placed for two 1500 kw. turbo-generator sets and also for boilers.

A large quantity of pulp was destroyed by a rfiie which occurred at the yard of the Gres Falls Company, Cap Magdeleine, P.Q., on July 20. At one time the fire threatened the mills. The fire was discovered in the afternoon and as the municipality was not equipped for combatting such an outbreak, an engine and men of the Three Rivers brigade rendered help. A message from Three Rivers states that practically the nntire pile of pulp was burned.

The sawmill of the Louison Lumber Company, Limited, at Jacquet River, N.B., was recently destroyed by fire. They report that they carried insurance to the extent of $40,000, which partly covered the loss. The equipment consisted of a twin slabber, 48-in. Wickes stock gate, circular saw, two edgers, and a full outfit of lath machines, slashers, trimmers, etc. The new mill will be equipped with a band mill of the same capacity. Construction will be commenced as soon as the company have their plans completed. They expect to commence sawing again in September.

A report from Truro, N.S., states that the Maritime Lumber Company, composed of British capitalists, which took over the Alfred Dickie lumber properties some time ago, is now in financial difficulty, and that its assets are being offered for sale at the suit of the Eastern Trust Company, in connection with foreclosing a mortgage given to the Royal Bank for money advanced. The timber areas embrace 300,000 acres of pine, spruce and hemlock, and are estimated to contain 600,000,000 feet of lumber. The company is said to have invested $300,000 in the venture, and stocks and bond liabilities are reported as amounting to $4,800,000.

Some extensive alterations are being made at the mills of the Laurentide Company, Grand'Mere, P.Q. The company have under construction an immense hydro-electric plant on the St. Maurice River, which will give about 60,000 horse power, and, in addition, are carrying out improvements to their sawmills and pulp equipment. An all steel log conveyor, 175 feet high, running from the sawmill, has been put into operation, and while the site for a new mechanical pulp mill is being excavated. This will be equipped with German grinders of a new type, about three times the size of the present type, the grinders being electrically driven. A new sawmill is also projected.

The Nouvelle Lumber Company, which recently purchased the mill and limits of Chappell Bros. in Bonaventure County, P.Q., has been incorporated under the laws of the State of Massachusetts. Their capital is $500,000 in preferred stock, and no bonds. The directors of the company are not all chosen, but are at present as follows—Chas. H. Fish, Boston, president; Arthur B. Silsbee, Boston, treasurer; C. H. Fish, A. B. Silsbee, Geo. C. Scott, R. S. Warner and W. C. Fish, directors. The property consists of 132,000 acres in Bonaventure County, with a mill located at St. Omer, P.Q. The company intend to enlarge or rebuild the mill in the near future, and to improve the property in many ways. Operations were commenced last spring, being a continuation of the operations of Chappell Bros., the former owners.

Western Canada

The Caledonian Saw Mills, Limited, have been incorporated with a capital of $25,000, with head office at Calgary, Alta.

W. G. Scrim Lumber Company, Limited, has been incorporated with a capital of $50,000, with head office at Vancouver, B.C.

Skeena River Mills, Limited, have been incorporated with a capital of $250,000, with head office at Vancouver, B.C., to carry on business as lumber operators, etc.

Fire recently completely destroyed the mill of the New Ladysmith Lumber Company, at Nanaimo, B.C. entailing a loss estimated at $30,000, fully covered by insurance.

Powell Lake Mill Company, Limited, have been incorporated with a capital of $40,000, with head office at Vancouver, B.C., to carry on business as manufacturers of lumber.

It is reported that, as a result of a visit to Victoria, B.C., by Mr. J. Langley, representing New York capitalists, the Victoria mills of the Canadian Puget Sound Lumber Company will soon be re-opened.

Watt & Gibson, North Regina, Sask., are contemplating the erection of a planing mill to cost $15,000. Their address is care Capital Investment Company, 1818 Cornwall Street. Their head office is located at Toronto.

Plans have been drawn for a pulp and paper mill to cost $150,000, at Winnipeg, Man., for the Dunlop Pulp & Paper Mills, Limited, 316½ Donald Street. It is possible that construction work will be started this summer.

A meeting of the bondholders of the Swanson Bay Forests Wood-Pulp and Lumber Mills is to be held in London, England on August 12th for the purpose of considering extraordinary resolutions for the sale of the company's properties.

It is reported that the British Canadian Lumber Corporation, Vancouver, B.C., have closed a deal for the sale of their largest mill. The price mentioned is $1,000,000 and it is also reported that the company intend to sell their other mills.

The White Pine Lumber Company, Spokane, Wash., are contemplating the erection of a sawmill near Westbridge, B.C., about thirty miles from Greenwood. The mill will have a capacity of 200,000 feet of lumber every twenty-four hours.

H. R. Godday & Company, Limited, have been incorporated with a capital of $250,000, with head office at Quebec, to carry on business as lumber merchants. The provisional directors are A. C. M. Thompson, advocate, and W. A. Godday, both of Quebec.

Sealed tenders are being received by the Minister of Lands of British Columbia, up to noon, August 7, for the purchase of a license to cut 875,000 feet of timber located at Deepwater Bay, Valdez Island, Sayward district. Three years will be allowed for the removal of the timber.

An application has been received by the British Columbia Forest Branch from the B. C. Sulphite Fibre Company, of Howe Sound, to purchase 200,000,000 feet of timber, hemlock and spruce. This company manufactures about fifty tons of sulphide per day, most of which is shipped to the United States and Japan.

The sawmill belonging to the Salmon River Lumber & Shingle Company, Limited, 198 Hastings Street West, Vancouver, B.C., was recently destroyed by fire. The mill, which was located on the B. C. E. Fraser Valley line, will be rebuilt in the near future. The loss was about $40,000. The manager of the mill is Mr. P. Sills.

The Empire Lumber Company is rapidly developing its property in the neighborhood of Cowichan Lake, B.C. A tug has been constructed for service in connection with the company's logging camps. Two new yard engines have also been secured. It is expected that the daily output will now be between thirty-five and forty cars.

Death of a Pioneer Beamsville Lumberman

Mr. Cyrus Russ, a pioneer of Beamsville, Ont., died recently at the house of his son at Woodstock, Ont., where for about two years he and his wife had resided. The late Mr. Russ was born in North Grimsby, 87 years ago. When a young man he went into the lumber business, which he conducted for upwards of 25 years, running a saw mill on the mountain. In 1890 he moved to Beamsville where he went into the implement business, which he conducted for nine or ten years, running a saw and planing mill in connection. Up to some five or six years ago he continued in the lumber business. Mr. Russ was always interested in municipal affairs and was a member of the Grimsby township council in the earlier days. Some two years ago he sold his property at Beamsville and went to live in Woodstock, with his son.

Studying Reproduction Cut-Over Areas

Dr. C. D. Howe, a member of the staff of experts employed by the Canadian Commission of Conservation is in Victoria, B.C., making arrangements for a study of natural reproduction in British Columbia forest areas, where logging operations have taken place, or where forest fires have occurred during the season. Dr. Howe who is also a member of the staff of the University of Toronto, School of Forestry, will make Victoria his headquarters while engaged in this work. At present he is making a study of the area upon which Shawinigan Lake Lumber Company has been operated for the past four years. Subsequently he will study the district of Chemainus, where the Victoria Lumber Company have been operating for twenty-four years. The result of his study will be published subsequently.

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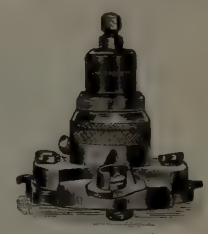

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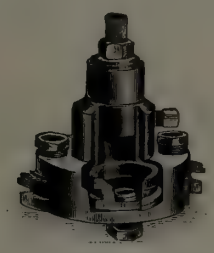

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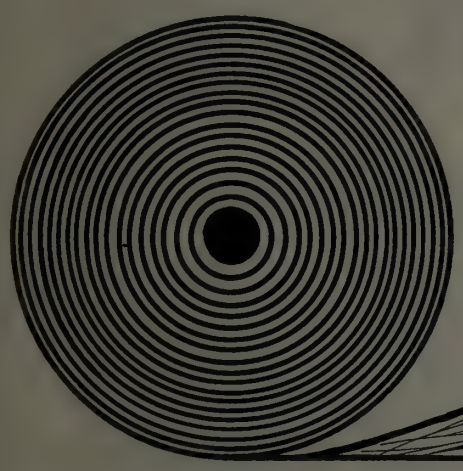

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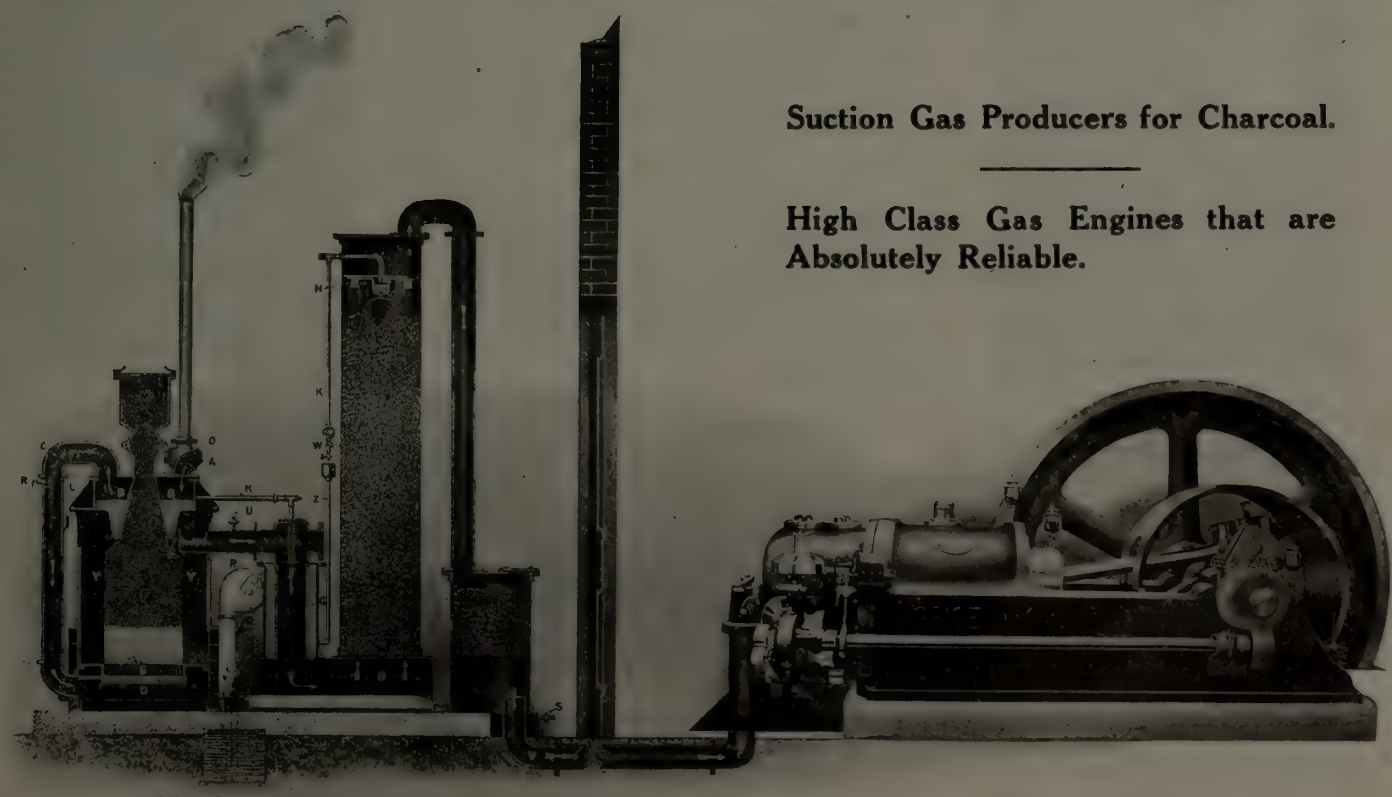

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OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. & up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. & up	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	52 00	54 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	32 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 1-in. x 9-in. s.c. strips	26 00	27 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	21 00	22 00
Pine, s.c. and bet., shorts, 1 x 6	21 00	22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00	25 00
Pine, box boards:.		
1" x 4" and up, 6'-11'	18 00	19 00
1"x 3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	19 00	20 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	65	70
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	75
By the dram, according to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$21 00	22 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better	
1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00
No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1¼ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00
No. 2 Cuts	
1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00
No. 1 Barn	
1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	21 00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00
Mill Culls	
Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions	
2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50
No. 1 Common Boards	
4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00
Flooring	
4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50
Shiplap—Finished	
4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50
Siding	
6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50
Lath	
No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
FLOORING	
No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00
SHIPLAP	
Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50
BOARDS—ROUGH OR S. 1 S.	
No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00
SHINGLES	
XXX B. C. Cedar	3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25
LATH	
No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

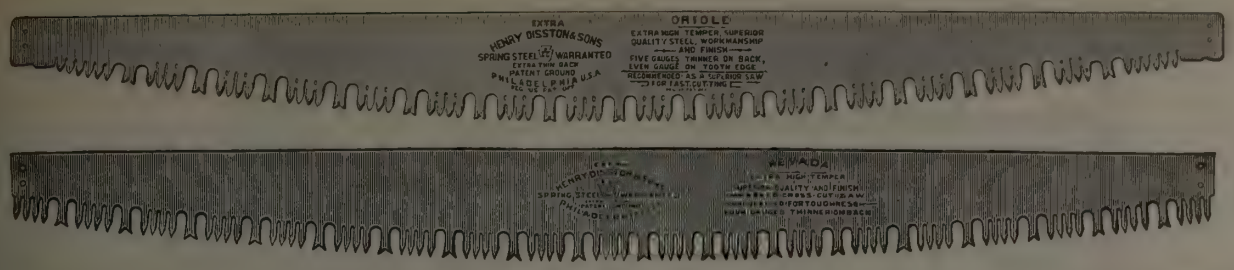
BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	52 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	55 00

(Continued on page 70)



Run Easiest
Cut Fastest
Last Longest

Disston Cross-Cut Saws

They are ground to a true taper by the special, and exclusively Disston, grinding process. Being ground on lines that conform exactly to the breast of the saw, the blade is absolutely uniform in thickness throughout the entire length of the cutting edge. This special method of grinding gives the maximum amount of clearance without sacrificing elasticity and stiffness. Any man accustomed to a cross-cut saw knows what that means.

And only Disston Crucible Steel is used. This steel combines the hardness and toughness that produces the wonderful edge—and set-holding qualities for which Disston Cross-cut Saws have long been famous.

Send for our Cross-cut Saw Booklet—free for the asking. It is the finest book of the kind ever published.

Henry Disston & Sons, Limited

Keystone Saw, Tool, Steel and File Works **TORONTO, CANADA**

Branch at Vancouver, B. C.

"The Saw With a Temper"

Size "S" Single Mill with 16-foot Carriage

Size Husk	3 feet by 6 feet 3 inches	Width of Carriages	33 inches
Diameter and Length Mandrel	2 3/16 by 55 inches	Trucks	7-inch wheels and 1¼ inch axles
Size Drive Pulley	20 by 10 inches	Length Track	32, 40, 48 or 56 feet
Feed per Revolution of Saw	0 to 3¼ inches	Style and Opening of Blocks	Cl-36 inches
Feed Belt	4-inch Gandy	Style Mill Dogs	Pony Excelsior
Largest Diameter Saw	56 inches	Style Set Works	No. 1 Single Ratchet
Length of Carriages	12, 16, 20 or 24 feet		

With each complete size "S" mill we furnish one saw, wrench, cant hook, feed belt, pulley with boxes for tightener and foundation bolts for husk.

Knight

Pony Lath Mill

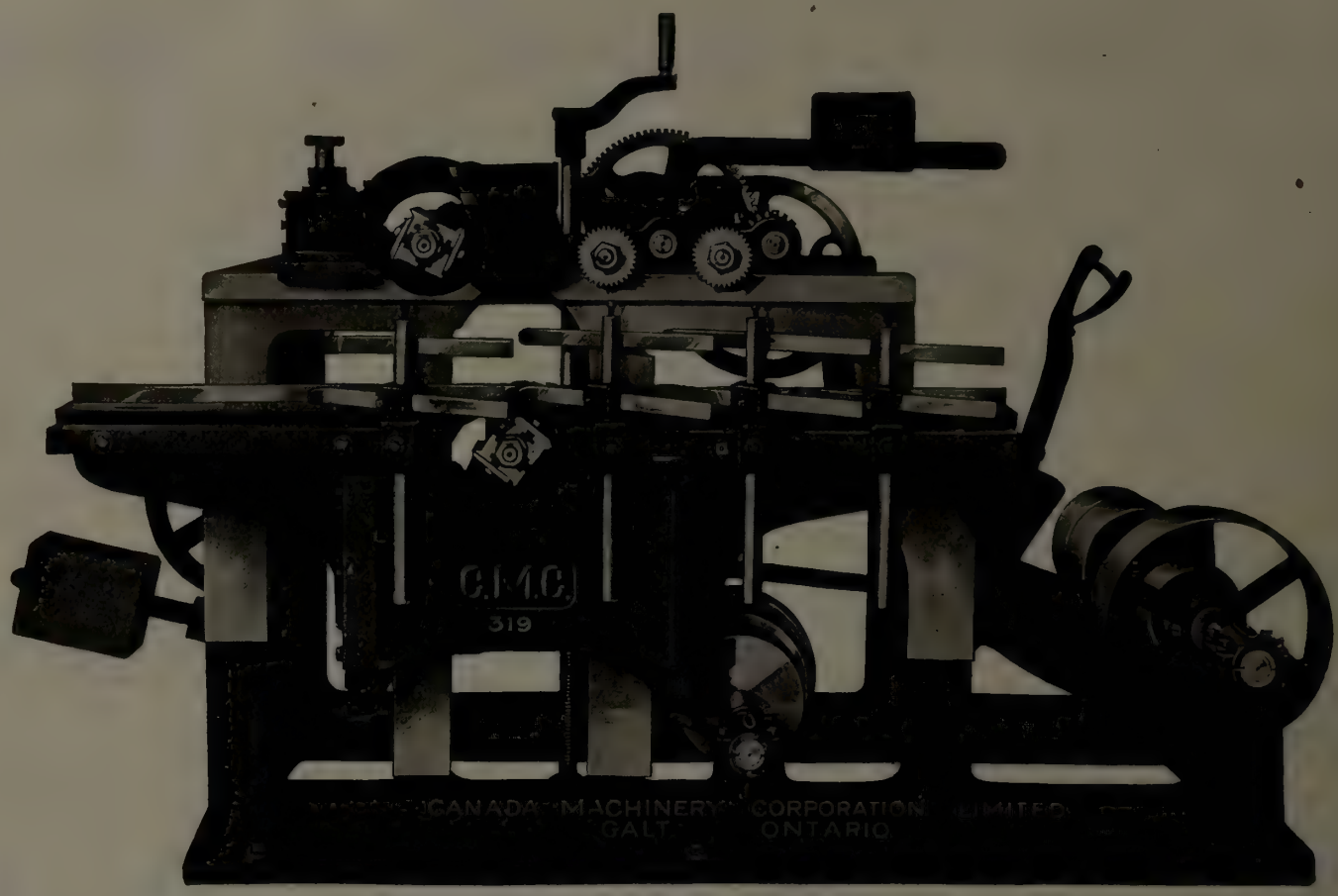
This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

THE KNIGHT MFG. CO., Canton, Ohio.

Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C.. E. Long Mfg. Co., Orillia, Ont.

DOOR C.M.C. STICKER



No. 319 Double Door Sticker

Designed for sticking both edges of stiles and rails for doors and sash at one operation.

The feed rolls are made to swivel on the frame, a new "C.M.C." feature that meets with the approval of practical millmen. This arrangement enables the operator to adjust the lead of the rolls to suit the quality of the material, thus overcoming the difficulty often experienced with machines of this class.

Three rates of speed can be obtained, and the change made from one rate to another without stopping the machine, thus saving considerable time.

It will take stock from 2½ inches to 15 inches wide and up to 4 inches thick.

Descriptive Bulletins on Request.

Canada Machinery Corporation, Limited

Galt - Ontario

BUILDERS OF HIGH GRADE WOODWORKING MACHINERY

YOUR KNIFE GRINDING

Should be done on a **Rogers - Buffalo** Full Automatic to get best results. Cut illustrates our Type "B" Grinder, with range from 54" to 130" Price $220 to $395.

We make a complete line of Knife Grinders and Saw Sharpeners, suited to every requirement.

Write for Catalogue.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N.Y.

DIXON'S Silica-Graphite PAINT

Protect your machinery and equipment exposed to the weather with a coating of this highly resistant paint—quite rust-proof, heat-proof, water-proof, fume-proof. A single application will outlast several coats of ordinary paint, because of the solid protective veneer of silica-graphite which is practically a part of the metal. Send for "Silica - Graphite Paint," Booklet No. 238-B.

Made in JERSEY CITY, N. J. by the

Joseph Dixon Crucible Co.

Established 1827

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.

TORONTO, CANADA

WIRE and WIRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, **Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.**

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooperage.

The Laidlaw Bale-Tie Co., Limited

Winnipeg — Harry F. Moulden & Son
HAMILTON, ONTARIO
Vancouver — George W. Laidlaw

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

Patented Nov. 29-1892
July 19-1910

HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

The Peter Hay Knife Co., Limited

GALT, ONTARIO

MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

Exhaust Systems

We design and install Exhausting Systems for Planing Mills, Shoe Factories, Pulp Mills, Grinding and Buffing Plants, or for any business where it is desired to exhaust foul air or convey materials by means of fans. We will be pleased to have enquiries.

Geo. W. Reed & Co., Ltd., Montreal

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4			47 00
No. 2 Moulding 6/4			47 00
No. 2 Moulding 8/4			47 00
No. 1 Barn 1 x 12			48 00
No. 1 Barn 1 x 6 and 8			34 00
No. 1 Barn 1 x 10			36 00
No. 2 Barn 1 x 6 and 8			32 00
No. 2 Barn 1 x 10			34 00
No. 3 Barn 1 x 6 and 8			26 00
No. 3 Barn 1 x 10			27 00
Box 1 x 6 and up			23 00
Box 1 x 10			25 00
Box 1 x 12			26 00
Box 1 x 13, and up			30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

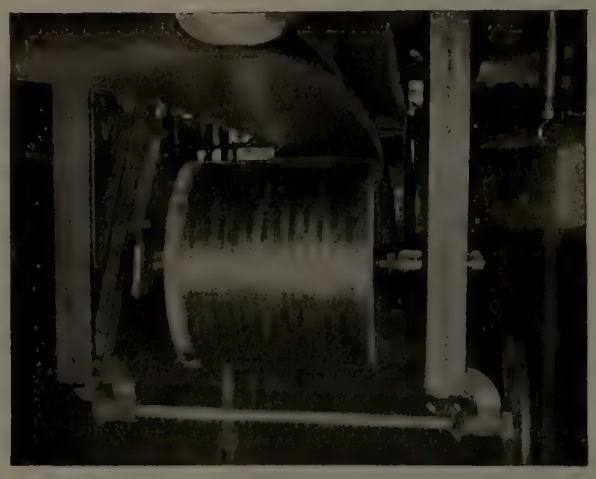
MAPLE	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	33 - 35	23 - 25	17 - 19
5/4 to 8/4	36 - 38	25 - 27	17 - 19
10/4 to 16/4	40 - 42	30 - 32	22 - 24
RED BIRCH			
4/4	44 - 46	30 - 32	18 - 20
5/4 to 8/4	46 - 48	32 - 34	20 - 22
SAP BIRCH			
4/4	38 - 40	26 - 28	20 - 22
5/4 and up	40 - 42	28 - 30	20 - 22
SOFT ELM			
4/4	38 - 40	27 - 29	18 - 20
5, 6 & 8/4	40 - 42	29 - 31	20 - 22
BASSWOOD			
4/4	36 - 38	27 - 29	19 - 21
Thicker	38 - 40	29 - 31	21 - 23
PLAIN OAK			
4/4	54 - 56	35 - 37	23 - 25
5/4 to 8/4	56 - 58	37 - 39	25 - 27
ASH, WHITE AND BROWN			
4/4	48 - 50	30 - 32	21 - 23
5/4 to 8/4	55 - 57	32 - 34	22 - 24
10/4 and up	64 - 66	44 - 46	24 - 26

BOSTON, MASS.

White pine uppers, 1 to 2 in...	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 0	27 00
Spruce, 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce, 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1⅝-in. spruce laths	4 15	4 25
1½-in. spruce lath	3 75	3 80

New Brunswick Cedar Shingles

Extras	3 50
Clears	2 90
Second clears	2 75
Clear whites	2 45
Extra 1s (Clear whites out)	1 50
Extra 1s (Clear whites in)	1 0%
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40 3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.	4 25
Red Cedar Perfection, 5 butts to 2¾	4 80
Washington 16-in. 5 butts to 2-in. extra red clear	3 35



Would it not be better to buy a package of Cling-Surface than expensive apparatus like this?

This 1000-pound Tightener Lost Its Job After the Belt was Treated with Cling-Surface

Many users of belts have the mistaken idea that tighteners are always necessary on short drives where one pulley is small and the other large.

This photograph shows a 1,000-lb. tightener in the New York Aqueduct Construction Plant near Yonkers, N.Y., that was so used on an old and oily 30-in. leather air compressor belt. But, the tightener did not prevent slip.

It is very difficult to make hard belts pull heavy loads without slip. The too frequent proceeding, as in the above case, is to increase belt tensions in one way or other. The high tension method is **wrong.** This the Yonkers people learned after starting Cling-Surface treatment over a year ago. The tightener rapidly became superfluous for the belt stopped slipping and it now runs with a sag of 13 inches.

Invariably belts treated in accordance with our directions can be run slack or easy without excessive tension, just as in the example cited above.

Write us details about your belts and your troubles, and we will tell you just how to proceed to effect maximum economy. Or, at least, write at once for further information if you care for better belt service. We quote f.o.b. Toronto.

Cling-Surface Co

1021 Niagara St Buffalo N Y

New York Boston Chicago Denver
Atlanta Memphis Toronto Etc 71-B

I would rather stroke a bird's wings than woman's hair.
And the fragrance of the rose pressed against my lips
Is sweeter and more sincere than woman's kisses.
—El-Rami.

Those Who Have Read:

"The Soul of Lillith," written by Marie Corelli, no doubt have been struck by the cynical expressions of El-Rami as to women's constancy. Throughout the whole novel there is a tone of doubt of women in general, though in discussion with Feraz, his brother, he admits there are clever women and faithful women; but further states: "we men seldom choose them, we are fools and we pay for our folly."

There is No Doubt of the high quality of the goods we manufacture, **The High Quality is Constant.**

Take for instance

Harris Heavy Pressure

"the babbitt metal without a fault."

We have spent years in experimenting in our chemical laboratory to produce a babbitt metal which would fill the bill in 95 cases out of 100 where genuine babbitt is used and our sales, which are increasing most rapidly, give evidence that the quality is constant and the metal reliable.

Engineers know that H.H.P. is built for service.
H.H.P. is the best babbitt metal for all general machinery bearings.
H.H.P. will not crack or squeeze out.
H.H.P. runs cool at any speed.
H.H.P. is copper-coated and copper-hardened.

Our reputation and guarantee is back of every pound
Write for Prices

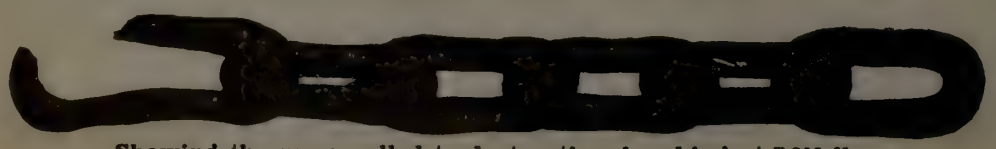
Canada Metal Co., Limited

Head Office, Toronto, Ont.

Branch Factories: Montreal, Winnipeg

What a Test Proved

Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking,)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

GET OUR PRICES AND PARTICULARS

Standard Chain Company

Pittsburgh, Pa.

The World's Largest Chain Producers.

Montreal: Alexander Gibb, St. Nicholas Bldg.
Winnipeg: Bissett & Loucks.
Vancouver: John Burns, 329 Railway St.

Loans on Timber Lands

For Long Periods of Time in Amounts from $25,000 and up

We have been in the lumber business for over half a century.

We now control and operate a number of mills. We also loan money to lumbermen.

It will be to your advantage to deal with practical men who know the requirements of the lumber trade all over Canada.

Our business is to know the wants of the lumbermen and to meet them.

Ontario Bond Corporation of Canada, Limited

HAMILTON, ONTARIO

The reputation of the Johns-Manville Company will bring you a bigger roofing business and profit.

Roofing buyers everywhere are awaking to the fact that of even more importance than the quality of roofing itself is the company that stands behind it.

J-M Asbestos Roofing and J-M Regal Roofing are built to give the kind of service that will insure a customer's goodwill and hold his patronage.

But, more than that—J-M Branches—located within a convenient distance of anywhere—invariably stand ready to make that promise good.

To sell J-M Asbestos Roofing and J-M Regal Roofing is to place yourself above competition—to get the exclusive trade of those who realize that real economy is not determined by first cost, but by service.

Write nearest branch for our special dealer proposition.

The Canadian H. W. Johns-Manville Co., Limited

Manufacturers of Asbestos Pipe Coverings; Packings; Brake Lining; Boiler Preservative; Fire Extinguishers; Cold Water Paint; Etc.

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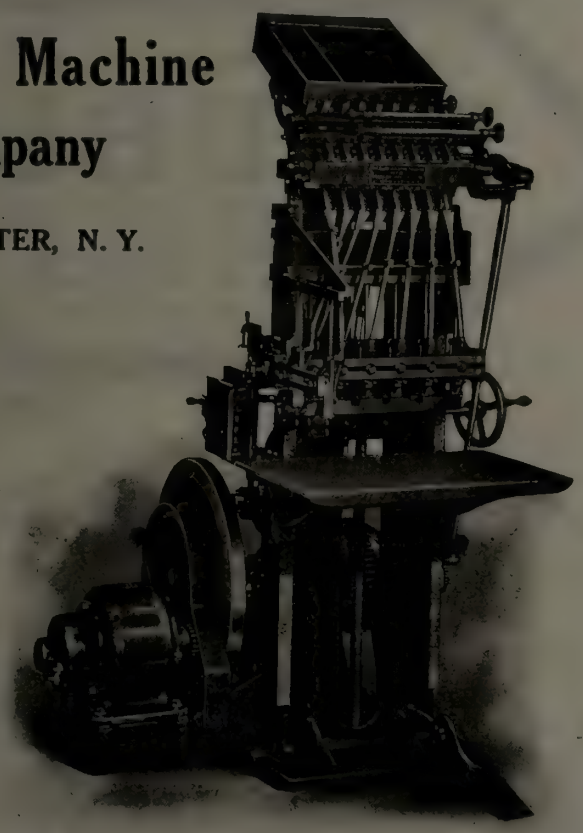
2503

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

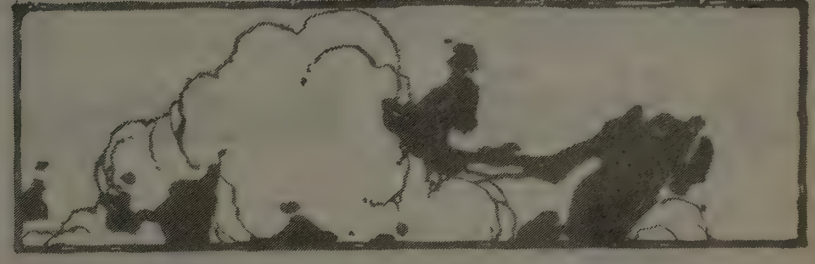
Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

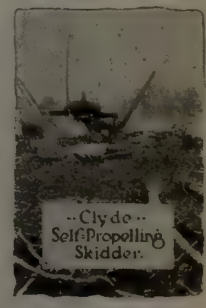
ROCHESTER, N. Y.



The Clyde System in Logging

aims to cut out as much dead time (time used in moving and getting ready to work) as possible and have the machines put in practically the full day skidding & loading logs

We will gladly show you how it works out



CLYDE IRON WORKS

Manufacturers of Machines for EVERY Logging Operation

CLYDE DULUTH, U. S. A. CLYDE

"Great Port of the Northwest"

Are your horses of use to you?

This seems an absurd question—and the answer is always "Of course they are"—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy
A sure and speedy cure for all kinds of Colic

1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**

Good Lumber HORSES

Should be free from all blemishes

Use **ABSORBINE** for Wind Puff' Capped Elbow, Bog Spavin, Thoroughpin, Shoe Boil, Curb, Enlarged Glands and all puffs and swellings, Fistulla, Poll Evil, Sprains, Contracted Tendons, Bruises, Lameness of all kinds.

ANTISEPTIC

You cannot get good work out of your lumber horses if they are lame, blemished, sore, sick or similarly unfit.
The animal with Swellings, Soft Bunches, Bog Spavins or any such blemish, whether lame or not, needs your attention.

ABSORBINE

best friend—it relieves the horse of all pain, soreness and troublesome blemish. It makes the horse better looking, better working, more fit and of greater value to you.
You can work your horse at the same time. This is no new lotion but the tried and tested remedy of many years successful use.
Thousands upon thousands of horses which would have been ailing and sick and unsightly have been made fit and well—good workers and good lookers. What others have done with Absorbine you can do, too.
All enquiries on special cases answered without delay—full information and instruction on request.
Absorbine $2.00 a bottle at druggists or delivered.

Manufactured only by

ABSORBINE

does not blister or remove the hair, never leaves scars or blemishes of any kind.

It is easy to apply and does not require the horse to be laid up.

Highly concentrated and only a few drops required at each application.

GERMICIDE

W. F. YOUNG, P.D.F.
424 Lymans Bldg. -:- MONTREAL, CAN.

Log-Handling Machinery

All our Loaders, Kickers and Canters are made with cylinders of the style shown in the cut.

Check Valves are provided in each end, and all piping between valve and cylinder is eliminated. These cylinders are extra heavy and very durable, and are absolutely guaranteed by us.

We carry in stock at all times a complete line of Log Deck Machinery—so we can always serve you promptly.

Shall we send our Catalogue?

William Hamilton Company
Peterborough - Ontario

WE CAN
DOUBLE
THE CAPACITY OF YOUR
DRY KILN
GRAND RAPIDS VENEER WORKS

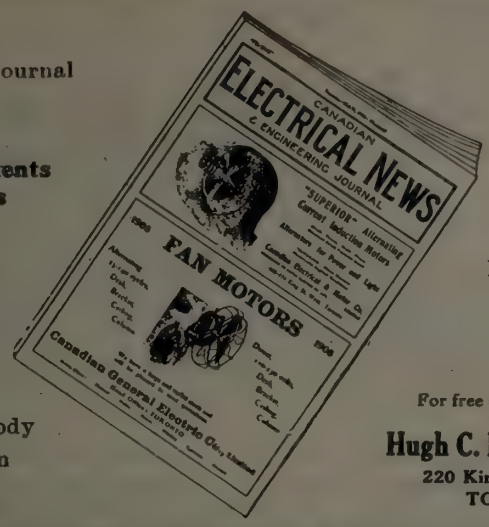
Dry Kiln Service

MEANS TO YOU

A Practical Theory
Competent Engineering
Effective Organization
Years of Experience
Guaranteed Results

Grand Rapids Veneer Works
Grand Rapids,
Michigan

A National Journal for **Managers Superintendents Electricians** and **Engineers** of **Electric Light Plants** and Everybody Interested in Electricity



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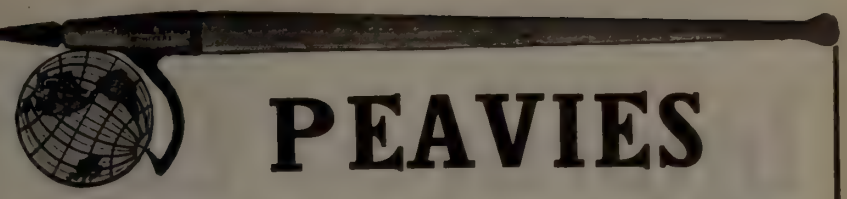


PEAVIES

Cant Hooks, Boom Chains, Timber Dogs

It is time to think about your logging equipment for the ensuing season. Let us figure on your requirements for Peavies, Cant Hooks, Timber Dogs, Boom Chains, and Shackles, Mill Chains, Forged Steel, Log Stamping, Hammers, etc.

Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

Write us for particulars and prices

ARGALL BROTHERS Three Rivers, Quebec

"DUXBAK" Waterproof Clothing

For outdoor wear this "Duxbak" cravenetted coat is just what many lumbermen are looking for. It is light in weight and absolutely guaranteed to be waterproof. The fabric permits of perfect ventilation.

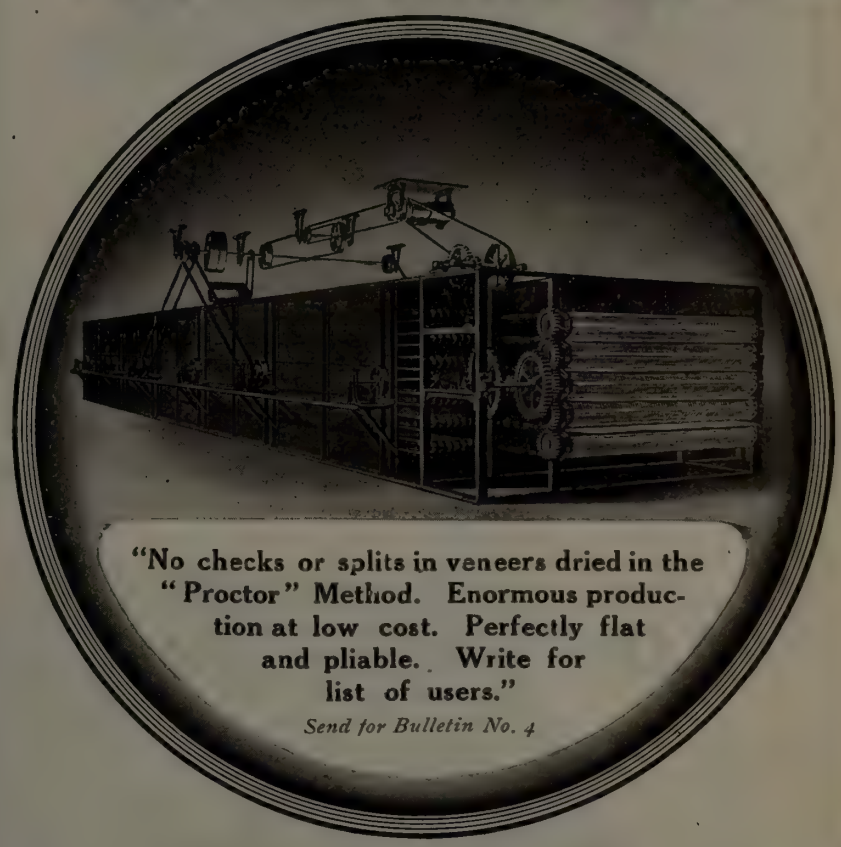
Other "Duxbak" garments are norfolk jackets, long trousers, knee pants, riding breeches, cartridge vests and a variety of caps and leggings, for both men and women.

Write us for booklet.

F. M. DIXON

59 St. Peter St. - Montreal

"PROCTOR" VENEER DRYER



"No checks or splits in veneers dried in the "Proctor" Method. Enormous production at low cost. Perfectly flat and pliable. Write for list of users."

Send for Bulletin No. 4

THE PHILADELPHIA TEXTILE MACHINERY CO.
PHILADELPHIA, PA.

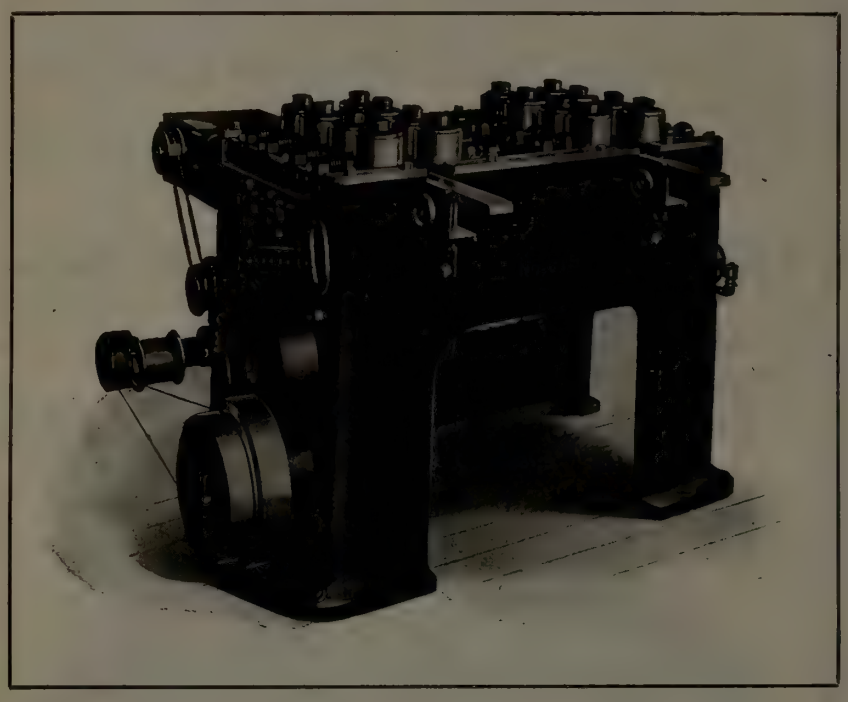
6 H.P. Heavy Duty Engine and Reversegear with Winch

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25 ft. punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 h.p.

Adams Launch & Engine Co.
Penetang, Ont.

Improved Box Board Matcher



16 driven feed rolls, 4⅛ in. in diameter, each one of which can be adjusted independent of all others.

4½ in. between centres of first and second pair; 5½ in. between centres of second and third pair (the cutters work between this pair) and 4¼ in. between centres of third and fourth pair.

This Matcher is compactly and rigidly constructed with every part readily accessible and the operators are close together when working.

Catalogue gladly furnished which illustrates and describes many other machines built expressly for Box Factories.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

LOW MAINTENANCE COST LOCOMOTIVES

The life of a locomotive depends upon the care taken in manufacturing. Care in manufacturing increases profits by decreasing cost of maintenance and repairs.

From their long experience in locomotive building, our engineers have learned what is necessary to increase the life and usefulness of this class of equipment. They are qualified to co-operate with you in selecting the locomotive best suited for your work. Let them help you.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog "H."**

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

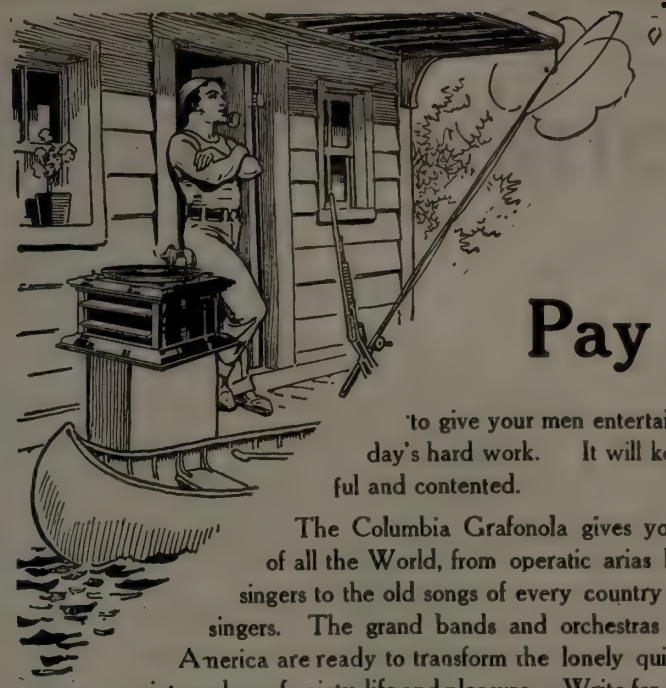
HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent



It Will Pay You

to give your men entertainment after the day's hard work. It will keep them cheerful and contented.

The Columbia Grafonola gives you all the music of all the World, from operatic arias by the foremost singers to the old songs of every country sung by native singers. The grand bands and orchestras of Europe and America are ready to transform the lonely quiet of the forest into a place of gaiety, life and pleasure. Write for descriptive catalogue of Columbia Graphophones and Grafonolas, selling at $17.50, $32.50, $65.00 and on up to $650.00. One for every taste and every purse.

Columbia Graphophone Co.
365-367 Sorauren Avenue
Toronto, Ont.

Creators of the talking machine industry. Pioneers and leaders in the talking machine art. Owners of the fundamental patents. Largest manufacturers of talking machines in the world. Manufacturers of the Dictaphone.

Columbia Records — Note the Notes

This engine is 13 ins. x 16 ins. and weighs 30 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

May we send you specifications

Canadian Locomotive Company, Limited, Kingston, Ont.
Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

The Genuine HOE Chisel-Tooth Saw

Special Flanged Shanks and Superior Bits for Hardwood

OVER 80,000 NOW IN USE IN ALL PARTS OF THE WORLD

HIGHEST QUALITY AVOID IMITATIONS

HOE HAS NO EQUAL

Write for Saw Catalogue to

R. HOE & CO. 504-520 Grand Street, **NEW YORK CITY**

Inserted Tooth Circular Saws

All Radcliff insert tooth saws are fitted with the world famed Hoe Bits and Shanks.

The body steel is tempered to the highest degree of perfection with sufficient pliability to avoid breakage.

We also manufacture a complete line of high grade solid tooth saws, rift saws, shingle and heading saws, grooving saws, mitre saws, wide and narrow band saws, mill saws, drag saws, gang saws, cross cut saws and machine knives.

"The Saw With The Keen and Lasting Edge"

Send for catalogue and prices

Radcliff Saw Mfg. Co., Ltd.

TORONTO

The Mark THE E. LONG MANUFACTURING CO. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

HEAVY DUTY EDGERS

Our Heavy Duty Edgers are built in 54 inch, 60 inch, 66 inch, 72 inch and 84 inch sizes.

Note that the base of the machine is built in one single casting, making the machine self contained and always in alignment.

The many features of this machine are fully described in the bulletin, mailed to you on request.

The E. Long Manufacturing Co., Limited, Orillia, Canada

Represented by :

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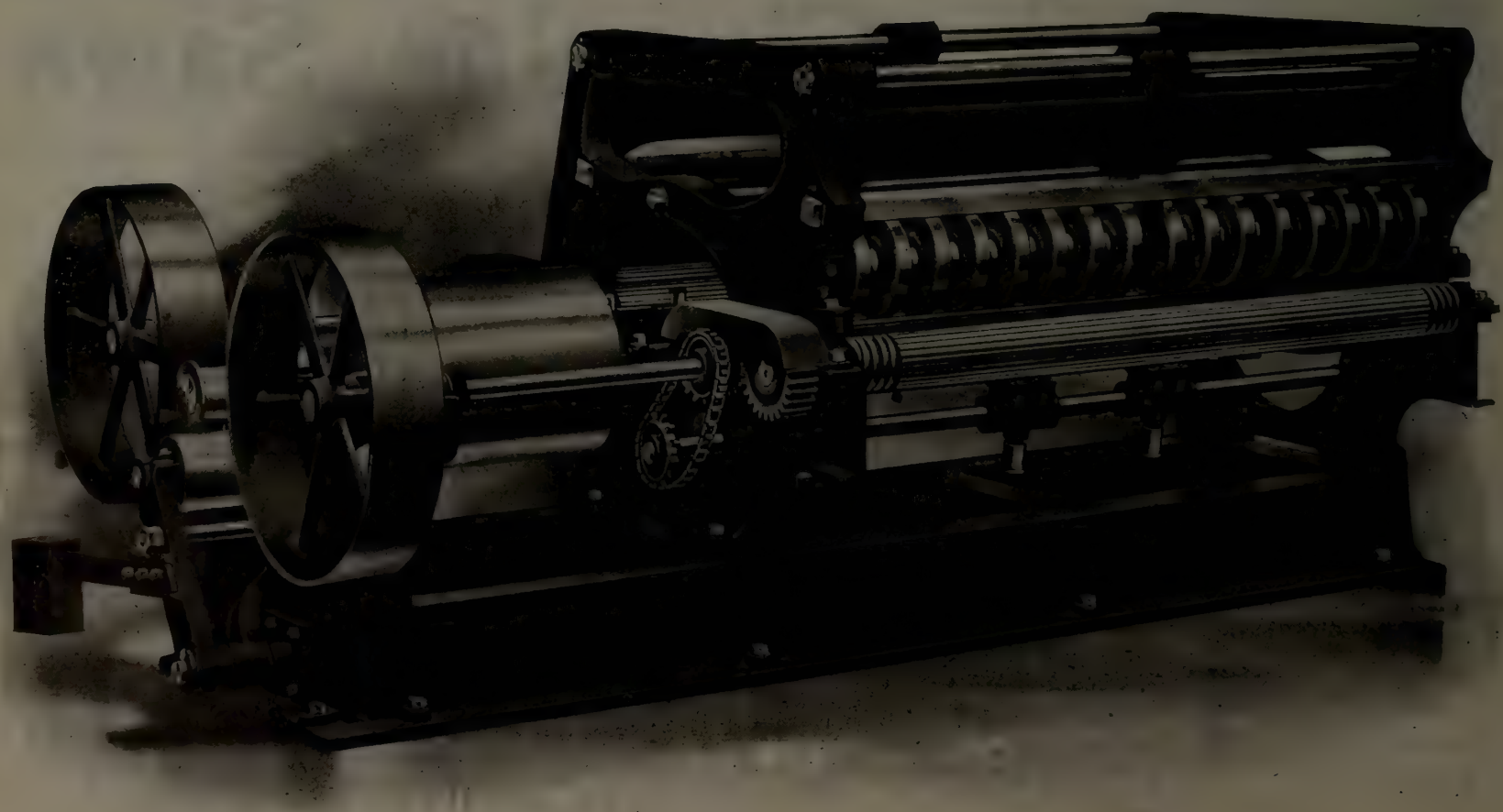


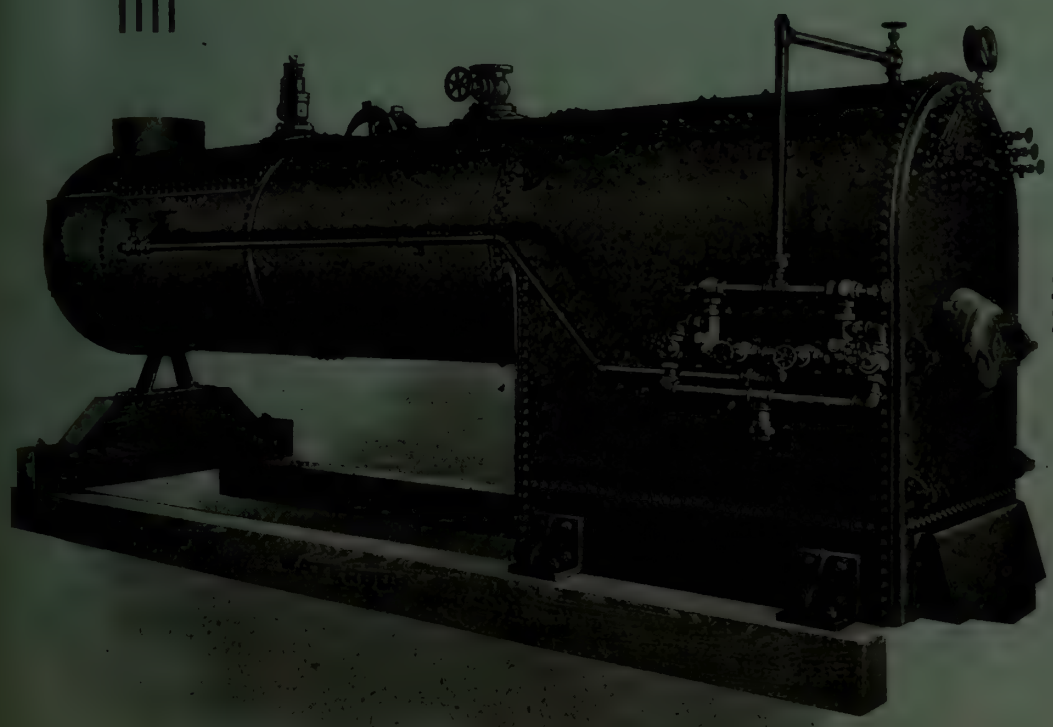
Waterous Boilers

Are Best For Sawmill Use

Waterous Return Tubular Boilers, both Stationary and Portable, are especially suitable for sawmill work. They combine economy in fuel consumption, ease and convenience in operation, with absolute trustworthiness.

"Safety First" is not new as applied to these Boilers—it has been the idea behind every detail in their design and construction for fifty years and more. Exceptional care—exceeding the requirements of ordinary provincial boiler building regulations—has been consistently exercised in the selection of the materials and in every operation of their building.

Let the next boiler you buy be a "Waterous"



Some Recent Installations

Canadian Pacific Railway, Calgary, Alta.,	2—60″ x 14′
Okanagan Sawmills, Enderby, B.C.,	2—66″ x 14′
Lake Superior Iron and Steel Co., Sault Ste. Marie	5—72″ x 18′
Corporation of Orangeville	1—54″ x 14′
Dominion Canners, Simcoe	3—72″ x 18′
Grand Trunk R. R., Montreal	2—72″ x 18′
Steel Company, Limited, Hamilton	2—72″ x 18′
Dunlop Tire & Rubber Goods Co., Toronto,	1—72″ x 18′
Imperial Oil Co., Limited, Sarnia	5—72″ x 18′
Canadian Westinghouse Company, Hamilton,	2—48″ x 14′
Wuyagamack Pulp and Paper Co., Three Rivers, Que.,	5—72″ x 18′

The Waterous Engine Works Co.
Limited
Brantford, Canada

H. B. Gilmour, Vancouver, B. C.
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"FROST KING" METAL

$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

"Maple Leaf" Brand

Stitched Cotton Duck Belting

A trial Belt will convince you. Write for prices and samples.

Excels all others in economy, strength, efficiency and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply **"Maple Leaf"** belt, a light double leather, and a 6-ply rubber belt, showed that our **"Maple Leaf"** Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts
Are the Best on the Market.

"Maple Leaf" Belt Dressing is the best for all kinds of belts.

Dominion Belting Co., Limited

HAMILTON - ONTARIO

Branch: Montreal—Office 51 Duluth Building

The J. C. McLaren Belting Co.

Limited

General Mill Supplies **MONTREAL**

BOILERS

"INGLIS" boilers are the product of over 50 years' experience and study combined with the most modern equipment for boiler making.

"INGLIS" boilers are made in every type and all sizes.

Let us quote on your requirements.

The John Inglis Co., Ltd.

Engineers and Boilermakers

14 Strachan Ave. Toronto, Canada

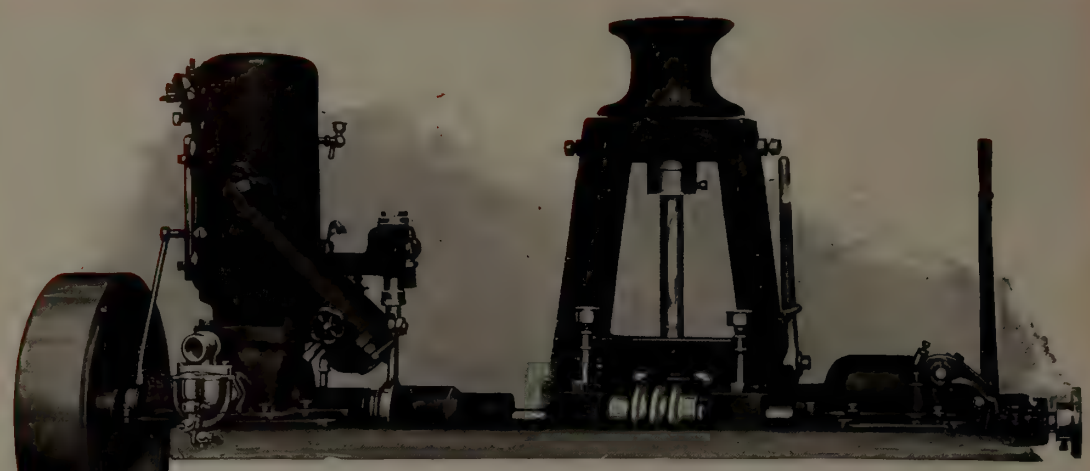
Montreal Representative—A. Angstrom, 509 Canadian Express Building

Canada Lumberman

and Woodworker

Annual Number

Toronto, August 15, 1914 Hugh C. MacLean, Limited, Publishers Vol. 34. No. 16



Adams Pointers

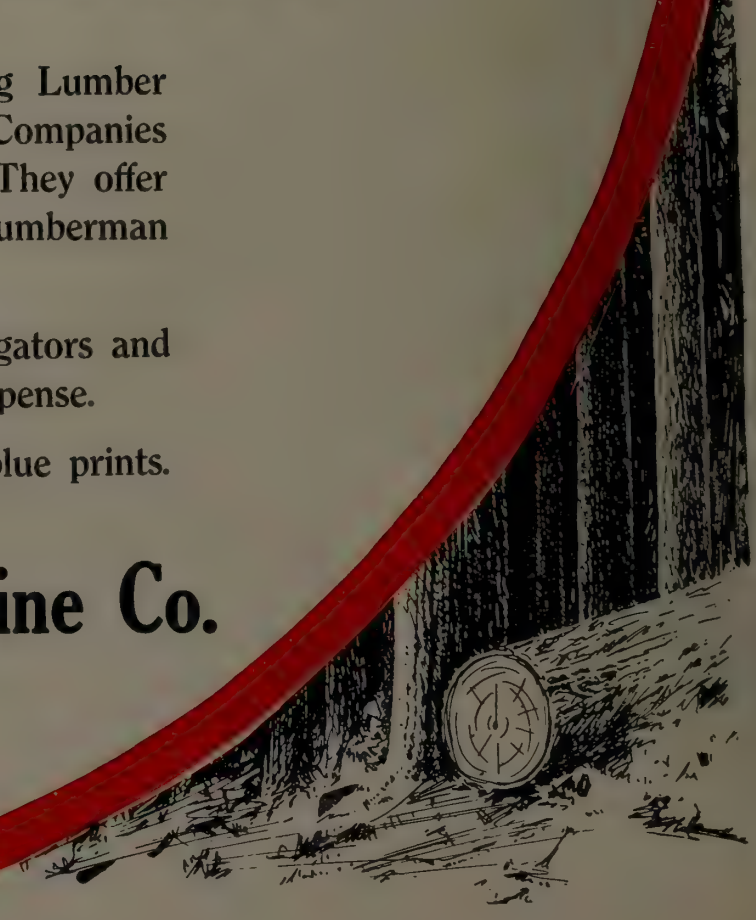
are now used by the leading Lumber manufacturers and driving Companies throughout the Dominion. They offer advantages which every lumberman should enjoy.

They do the work of alligators and tugs at less than half the expense.

Write for catalog and blue prints.

Adams Launch & Engine Co.

PENETANG, ONT.



VIEW OF OUR MILL AND BOOMS

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Manufacturers of

Lumber, Lath and Dimension Timber

Planing Mill

Dry Kiln

Humboldt Redwood

The largest and most costly passenger steamer on inland waters of the world.

ILLUSTRATED is the "Seeandbee," the largest sidewheel steamer in the world. All the decks, staterooms, partitions, etc., of this floating palace are built of beautifully figured Humboldt Redwood.

This is a striking example of the use of this wood. It is also unequalled for all out-of-door construction because of its weatherproof qualities.

Humboldt Redwood is free from pitch, fire-repelling, easily worked, takes a mahogany finish, and will not rot, check or be attacked by vermin.

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Canada Lumber Sales
Company, Limited
Montreal

Lumber Grades To Boost Your Profits

¶ There is always a demand for lumber of known quality that stands up under the most trying conditions and that gives the best value for the money. You will find no better or more economical grades than our

White Pine Red Pine Quebec Spruce Pine Lath Cedar Shingles

¶ It is our endeavor at all times to give prompt shipments and you are thus assured of the quickest possible deliveries. Our saw and planing mills are now running and we can make rail, schooner or steamboat shipments.

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Bartram Brothers

Limited

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Ed. T. Saxe, 200 Claremont Ave., MONTCLAIR, N. J.

Fraser-Bryson Lumber Co., Ltd.

Wholesale Lumber Dealers

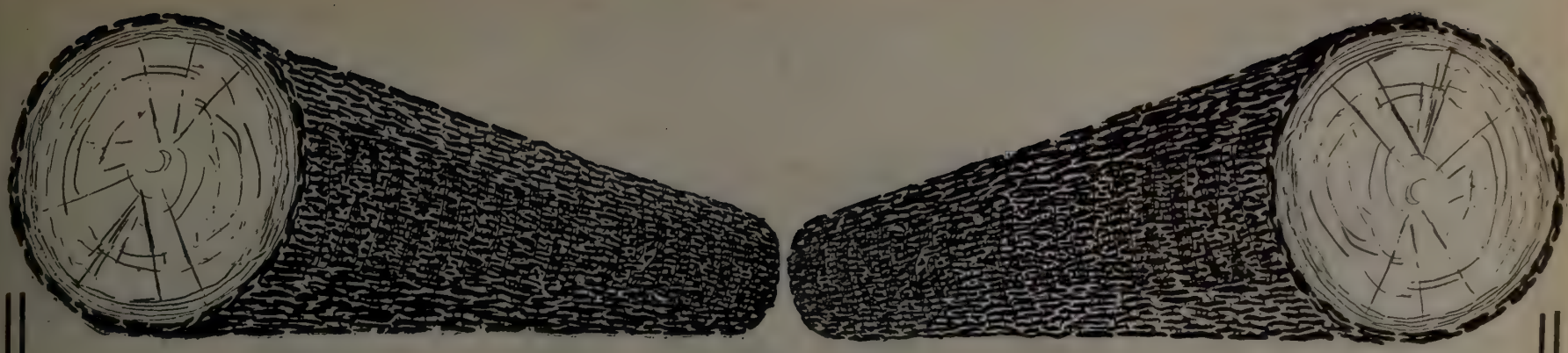
White Pine
Red Pine
Spruce
Lumber and Lath

Selling Agents for Fraser & Company, Manufacturers

Mills at Deschenes, Que., near Ottawa

Castle Building, 53 Queen Street

OTTAWA, CANADA



Spruce and Hemlock

Everything in Hemlock

from 1 by 4—10 to 2 by 12—16 as well as a good assortment of longer lengths.

We have secured the whole product of a run of fine SPRUCE logs from a leading Northern Ontario mill. Our 1913 cut from the same mill gave universal satisfaction.

We also offer a fine run of 2" White Pine Dry.

Prompt shipment guaranteed

Inquire and receive prompt attention

Read Bros. Limited

43 Victora St., Toronto

"On the Jump" Shipping Orders

for

HOCKEN'S HEMLOCK

Dressed and Sized

Let us quote on your list

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

Panoramic view of plant of C. Beck Mfg. Co., Penetanguishene, Ont., showing from left to right, New Mill, Pail and Tub Plant, Old Mill and a section of the yard.

Choice Logs and A Modern Plant
mean
"Good Wood Goods"

White and Norway Pine

We deliver immediately on receipt of order.

Some of our specialties: **Laths, Boxes, Box Shooks, Wooden Pails and Tubs.**

We can Dress, Match and Resaw

Send us your orders and inquiries

"We Aim to Serve You With the Best"

C. Beck Mfg. Co. LIMITED
Penetanguishene, Ont.

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Selling Agent
299 Congress Street,
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Brompton Pulp and Paper Company

Daily Production:—
60 Tons News Print
320 Tons Ground Wood Pulp (Dry)
90 Tons Sulphate Pulp (Dry)
60 Tons Kraft Paper (Dry)
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LUMBER of all kinds:—
Clayboards, Shingles and Pulpwood

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EAST ANGUS
BROMPTONVILLE
and D'ISRAELI, P. Q.

Manufacturers of

News Print Paper, Kraft Paper, Sulphate Pulp, Box Board, Ground Wood Pulp, Building and Fibre Papers, Clapboards, Shingles and Lumber

of every description

Our mills are equipped with the Latest improved machinery for manufacturing both Paper and Pulp.

We would especially draw the attention of paper Dealers to our celebrated BROMPTON KRAFT PAPER, which we claim to be the best and strongest paper of its kind made.

Our GROUND WOOD PULP is made from pure Spruce Wood, and is of a uniformly high standard.

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¶ The Ottawa Plant is the most modern woodworking plant on this continent. It is equipped with the best machinery for the manufacture of Doors, Columns, Sash, Hardwood Flooring, Interior Trim, Etc.

¶ A large supply of high grade and well seasoned lumber is always maintained thus ensuring prompt shipment on all orders.

¶ We sell Everything in Lumber.

Prices and particulars cheerfully furnished.

W. C. Edwards & Co., Ltd.

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The careful selection of handsomely figured wood, the proper jointing and assembling of the core and the good finish are features that have made Davidson Doors "Dominion Wide" famous. These hardwood doors are made in a large variety of patterns and panellings.

Our pine stock doors are also a good line to handle and are made in the largest door plant in Canada.

The best goods and prompt shipments claim your attention.

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Canada's Largest Sash and Door Plant

Forest Mills of British Columbia, Limited

Head Office: REVELSTOKE, B. C.

Mills at

Taft, Three Valley, Comaplix, Cascade

We manufacture everything that a retail yard requires and we sell to the trade only.

We specialize in:—

Cedar Bevel Siding 4 in. and 6 in.
Cedar Windproof Siding 4 in.
Clear Cedar Finish and Mouldings
Clear White Pine Finish
White Pine Factory Stock
Western Pine, Fir and Larch
Cedar Shingles, Lath and Mouldings

We carry a complete stock and can make prompt shipments and always stand behind our grades and manufacturing.

Our representatives are

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MANITOBA:—W. H. Hoover, Winnipeg
SASKATCHEWAN:—United Lumber Co., Saskatoon
ONTARIO:—W. J. MacBeth, Toronto

WM. POWER, M. P.
PRESIDENT, QUEBEC

W. GERARD POWER.
MAN. AND SECY., ST. PACOME

RIVER OUELLE PULP & LUMBER CO.

St. Pacome, Quebec

Exterior of Mill at St. Pacome, Que.

Manufacturers of

Lumber Lath and Pulpwood

OUR Prime Quebec Spruce of most careful and unexcelled manufacture is the most serviceable lumber of the present day.

Interior of Mill at St. Pacome, Que.

CORRESPONDENCE SOLICITED FROM HOME AND FOREIGN BUYERS

***Head office at* ST. PACOME, Quebec, Canada**

On the I. C. R. 75 Miles East of Quebec City

Mills at St. Pacome, and Crown Lake, River Manie, and Powerville, on Nat. Trans. Ry.

W. B. MacLean, President G. A. MacLean, Sec.-Treas.

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Limited

Mills at Parry Sound, Ontario

View of Mills at Parry Sound

Manufacturers of all kinds of

Pine and Hemlock Lumber, Timber and Lath

HEAD OFFICE:

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A Specialized Product

Our Maple Flooring is manufactured from selected, uniform stock, kiln-dried and seasoned. It is straightened, hollow-backed, bored, end matched, steel polished and bundled. We also manufacture Beech, Birch and Oak Flooring.

The name "Wilson Brothers, Limited" on Hardwood Flooring is a guarantee of excellence. We have unequalled facilities, afforded by experienced workmen and modern machinery, for producing the best.

We also specialize in **Hardwood Interior Finish** and **Hardwood Veneer Doors** all to detail, also **Stair Building.**

Wilson Bros. Limited, COLLINGWOOD, ONTARIO

HARDWOOD FLOORING

Pembroke
Lumber Company

Red and White Pine
Spruce and Hemlock

MANUFACTURED IN

Mill De Luxe

The **Pembroke Lumber Company**

Pembroke, Ont.

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Lumber - Timber

All kinds

Pulpwood - Ties - Poles

California Red Wood

R. HANSON & SONS

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Michigan Hardwoods

and

Hemlock Lumber

Grayling - Michigan

Safety First

Hemlock

LONGFORD

1 in. No. 2 Hemlock
2 x 4 No. 2 Hemlock
2 x 6 and up Hemlock
1 in. No. 1 Hemlock
2 x 4 to 2 x 10, piled separately

SOUTH RIVER

1 in. No. 2 Hemlock
2 x 4 and up Hemlock
1 in. No. 1 Hemlock
2 x 4 to 2 x 10 No. 1 Hemlock, piled separately.

CACHE BAY

1 in. No. 2 Hemlock
2 x 4 and up Hemlock
1 in. No. 1 Hemlock
2 x 4 to 2 x 12 No. 1 Hemlock, piled separately.

Pine

SOUTH RIVER

1 x 4 and 5 White Pine
1 x 6 White Pine
1 x 8 White Pine
1 x 10 White Pine
1 x 12 White Pine
1 x 13 and up White Pine

CACHE BAY

1 x 4 and 5 Red Pine
1 x 6 Red Pine
1 x 8 and up Red Pine
2 x 4 Red Pine
2 x 6 Red Pine
2 x 8 Red Pine
2 x 10 Red Pine
2 x 12 Red Pine

Hardwood

SOUTH RIVER

4/4 x 4 and up No. 2 and 3 Common Birch
4/4 x 4 and up No. 1 Common Birch
5/4 x 4 and up No. 1 Common and Better Birch
8/4 x 6 and up No. 1 Common and Better Birch
10/14 x 6 and up No. 1 Common and Better Birch
4/4 No. 1 Common and Better Basswood

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Profitable Lines For Retailers

SELL "Knight" sash, doors, interior trim and mill-work and you will be sure of satisfying your customers. We are making a specialty of this class of work in pine and hardwoods and have installed a most up-to-date plant.

We are also equipped to do matching in transit and can handle your stock from scow to railroad.

Write for our prices. They will interest you.

Knight Mfg. & Lumber Co.

Limited

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SAWMILL AT SPRAGGE, ONT.

Red and White Pine Lumber

SHIPMENTS BY RAIL OR WATER

NEW ONTARIO COLONIZATION CO., LIMITED

LUMBER, LATH and PULPWOOD ***Planing Mill Work***

Spruce, Balsam, Tamarack, Whitewood, Poplar continuously in stock.

Mills—JACKSONBORO, Ont. ***Rossed Spruce Pulpwood.*** Sales Office—BUFFALO, N.Y.

For Sale — Rich Clay Loam Lands

Townships of Haggart and Kendrey,
Dist. Temiskaming, Ont.
Special Inducements to Settlers and Homeseekers.
WRITE FOR PARTICULARS.

A. G. McKEAN C. P. LITTLE

Collingwood Hardwood Lumber Co.

View of one of our mills in Pretty River Valley.

OUR SPECIALTIES :

White Basswood,
White and Quartered Maple,
Red Birch and Soft Elm

WHOLESALE DEALERS AND MANUFACTURERS

Hardwood, Pine and Hemlock Lumber

Excellent manufacturing and shipping facilities. Let us know your requirements.

Head Office - COLLINGWOOD, ONT.

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THE NORTH SHORE SHINGLE ASSOCIATION

DIRECTORS

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Campbellton, N. B.

Comprising practically all the Shingle Manufacturers in Eastern Canada, as per list.

MILLS AND SHIPPING POINTS AS FOLLOWS

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The Richards Mfg. Co.,	" "
B. A. Mowat,	" "
Continental Lumber Co.,	Charlo, N. B.
The McMillan Co.,	Jacquet River, N. B.
The Miramichi Lumber Co.,	Chatham, N. B.
The J. B. Snowball Co.,	Tracadie and Chatham, N. B.
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Edwards & McLeans,	Bonaventure, Que.
Forest Reserve Pulp & Paper Co.,	Gaspe, Que.

Standard grading rules have been adopted and stock runs uniform and strictly up to grade.

We are now offering for QUICK SHIPMENT in splendid shipping condition.

EXTRAS, CLEARS and CLEAR WALLS

For Quotations write or wire either the Mills direct or to the Canadian Sales Agent,—F. G. Wheaton, Amherst, N. S.

North Shore Shingle Assoc'n.

Canadian Sales Agent: F. G. Wheaton, Amherst, N. S.

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For Quick Shipment Send Your Orders to Us.

THE FOLLOWING DRY

Pine and Spruce Lumber

IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 "	1 x 10″	"
50 "	1 x 7″ and up	"
10 "	1¼ x 7″ and up	"
10 "	1½ x 7″ and up	"
2 "	1½ x 12″	"
5 "	3 x 6″ and up	"

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

Clear and No. 1 Spruce

10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 "	1 x 7″	"
4 "	1 x 8″	"
5 "	1¼ x 8″	"
3 "	3 x 10″ and up (mostly 11″)	"

Also "BEAVER BRAND" White Cedar Shingles—full count. Shipment by rail or water.

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Bathurst, N.B., Canada

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J. B. SNOWBALL CO., Ltd.

Chatham - New Brunswick, Canada

Logs Ready for the Saw

Manufacturers of

Spruce, Pine, Hemlock, Hardwood, Lumber, Cedar Shingles and Laths

Mills - Chatham, Tracadie, Millerton

We solicit your enquiries.

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Mill at East Apple River

Mill at Pt. Wolfe, N.B.

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Nature's Best in Woods

Man's Best in Manufacture

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Boards, Lath, Piling
Cooperage Stock, Spars
Knees and Shiptimbers
Flag and Clothes Poles
Stage and Scaffold Poles
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Selected Birch or Maple

Curly Birch and Bird's Eye Maple
For Veneer Purposes

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Rough and Finished

Shingles, Lath, Piano Sounding Board Stock, etc.

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Head Office, St. John, N.B.

Mills: St. John, N.B. Blackville, N.B. Marysville, N.B.

Manufacturers of

Bleached Sulphite Pulp

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Manufacturers of

Horizontal and Upright Engines, Portable and Stationary Saw Mills, Tram Engines, Patented Belted Friction for Saw Frame. Our Carriages and Edgers are leaders. Heavy Carriages with Killam Patent Saw Bed with Capacity of 65,000 per day.

MILL SUPPLIES: Hoe and Atkins Saws, Belt, Lacing, Oil, Valves, Steam Gauges, Pemberthy Injectors, &c.

REPAIRS to all kinds of Machinery executed promptly and efficiently.

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"10" Good Points To Consider

The good features of Acadian Pride Homespun Pants will appeal to Lumbermen.

Your men require only reliable clothes and A.P.H. is particularly adapted for the hard usage incident to this occupation.

A.P.H Pants are sold in all parts of Canada from Cape Breton to the Yukon.

BRACE BUTTONS
ACADIAN PRIDE
THIN & FIRM DOUBLE STITCHED EDGE ON WAIST BAND
SEWED ON WITH STEEL
STRENGTHENED WITH STRONG BAR TACKING
FOUR POCKETS EXTRA HEAVY GREY DRILL SEAMED AND RESTITCHED
These PANTS are made from the famous ACADIAN PRIDE HOMESPUN
PRICE TICKET
These PANTS are made from the famous ACADIAN PRIDE HOMESPUN, and are guaranteed for Strength and Durability
STAMPED ON POCKETS
SUBSTANTIAL WAIST LININGS BEARING REGISTERED DESIGN BLUE ON WHITE AS SHOWN ABOVE
AMPLE IN SEAT ROOM, CUT EXTRA LARGE FOR EASE AND COMFORT IN WORKING
SEAT SEAM AND CROTCH RE-ENFORCED AND DOUBLE STITCHED
SEAMS SEWN WITH 4 CORD THREAD
AMPLE HEIGHT AT WAIST.
STRONG BAR TACKING TO STRENGTHEN POCKETS & FLY
ACADIAN PRIDE HOMESPUN IS THOROUGHLY MILL SHRUNK BEFORE MAKING UP
BOTTOMS RUBBER GUMMED & FELLED

ACADIAN PRIDE HOMESPUN PANTS

If you conduct a Clothing Department your men will appreciate A.P.H. Pants, and we shall be pleased to furnish particulars.

This is the time to place orders for winter, and the early spring trade of 1915.

Send your address and mention this paper to

Clayton & Sons, Wholesale Clothiers

Halifax, N. S.

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Selected Mahogany Stocks Piled Toronto Yard

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We Specialize in Wide Stocks

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For Long Periods of Time in Amounts from $25,000 and up.

We have been in the lumber business for over half of a century.
We now control and operate a number of mills.
We also loan money to lumbermen.
It will be to your advantage to deal with practical men who know the requirements of the lumber trade all over Canada.
Our business is to know the wants of the lumbermen and to meet them.

Ontario Bond Corporation of Canada

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Hamilton, Ontario

QUALITY LUMBER

If You Are a Buyer of

BIRCH
SPRUCE
WHITE PINE
HARDWOODS

We can interest you.

If attractive prices and quick shipments appeal to you write at once for our prices.

Quincy Adams Lumber Co., Limited

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Gulf Cypress
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Long Leaf Timber

From our wharves in Portland, Maine

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Red Deer
Hardwood Flooring

"Red Deer" flooring is manufactured to meet the demand for a high grade flooring at a moderare price.

Prices on this flooring and also Hemlock, Spruce, Bill stuff and Hardwood Lumber will be gladly furnished upon request.

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13 Foot and 16 Foot

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Saw Mill and Novelty Works. All kinds of Hard and Softwood Lumber. Dimension Stock in Beech, Maple and Birch. Mattress and Cot Frames, Etc.

Send me your requirements, I can furnish you stock that will please.

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LUMBER AND TIMBER

White Pine, Norway, Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty,
Interior Trim Mill Work.

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Write us for particulars and prices

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Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

Manufactured by

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Good Grades — **Right Prices** — **Prompt Shipments**

Canadian Hardwood. National Grading Rules

Birch
Basswood
Maple
Elm
Beech

All Thicknesses

Also full line in

White, Red

and

Jack Pine

All grades and sizes.

Get in touch with us for prices

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Manufacturers and Strictly Wholesale Dealers in Lumber

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QUEBEC

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring, Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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The Rimouski Industrial Co., Ltd.

(La Cie Industrielle de Rimouski, Ltee.)

Dressing of wood in transit on the Intercolonial Railway.

SPECIALTIES

Sawed Hemlock
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White Pine Lath
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Lumber

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Austin & Nicholson
Chapleau, Ontario
Rough and Dressed Lumber and Lath
Dressing and Matching in Car Lots a Specialty

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CHOICE
Southern Hardwoods
Cypress, Kiln Dried North Carolina Pine
Send Us Your Inquiries
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Yard at Prison Point
Cable Address "Hobco Boston."

Seeing Is Believing
But this does not apply to timber unless you are capable to determine
HOW MUCH YOU SEE
We have perfected our cruising methods by years of study and experience.
Munson-Whitaker Co.
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Chicago, 512 Cont. and Comm. Bank Bldg.
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The Penetanguishene Planing Mill Sash and Door Factory
Planing of all kinds done by carload. Railroad Switch in connection with mill.
All classes of building material, lime and cement for sale.
ALPHONSE TESSIER, Builder & Contractor
PENETANGUISHENE, ONTARIO

"Well Bought is Half Sold"

We Offer the Following Special Lines—
For Quick Sale

2 Cars	4 x 4 to 6 x 6	Sound Cedar Squares
100,000 Ft.	5/4	1st and 2nd Basswood
2,500 "	8/4	" " "
2,500 "	16/4	" " "
12,000 "	8/4	1st and 2nd Soft Elm
17,000 "	4/4	No. 1 C. & B. Soft Elm
22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8 to 16"—10 to 16 ft.	1st and 2nd White Ash
13,000 "	2 x 6 and up—10 to 16 ft.	No. 1 C. & B. White Ash

Hardwoods Thoroughly Dry
Your Inquiries Will Have Prompt Attention

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MANUFACTURERS OF

Pine and Hemlock Lumber

1026-32 Traders Bank Bldg, **Toronto, Ont.**

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B. C. Timber Lands
Located on three New Railroads { G. T. P. / C. N. R. / P. G. E.
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Quick Shipments
Gulf Cypress
N. Carolina Pine
Long Leaf
Timber
From our wharves in Portland, Maine
Wilson Lumber Co.
Portland, Me.

Thurston-Flavelle Lumber Company

MANUFACTURERS OF

British Columbia RED CEDAR

Exclusively

4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding
8, 10 and 12 inch CLEAR CEDAR FINISH
EXTRA XXX RED CEDAR SHINGLES

Head Office and Mills : : Port Moody, B. C.

Eastern Agents, Gull River Lumber Co., Ltd., Lindsay, Ont.

Canada Pine Lumber Co., Limited

Lumber Manufacturers

Mills at Kearney, Ont.

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WHITE PINE LUMBER

Head Office, - - HAMILTON, ONT.

Edward Clark & Sons

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Manufacturers, Wholesalers and Exporters of High Grade

Canadian Hardwoods and Soft Corky White Pine

10,000,000 feet of dry stock now on hand

Quick shipments east or west direct from mill to factory

Below is a list of dry Lumber we can ship promptly. Put up especially for Trim trade.

300,000 ft. 4/4 Birch 1st and 2nds 50% 10" and wider Red all in
200,000 " 6/4 x 10" and up Birch Stair stepping
300,000 " 5/4 Birch 1st and 2nds
300,000 " 6/4 " 1st " 2nds
400,000 " 8/4 " 1st " 2nds
} 10" average and 40% 14 and 16 ft. long
50,000 " 4/4 Basswood 1st and 2nds
50,000 " 5/4 " 1st " 2nds
100,000 " 4/4, 6/4 and 8/4 Brown Ash
30,000 " each 6/4, 8/4 and 12/4 White Pine good sidings

For Furniture and Parlor Frame Manufacturers

200,000 ft. each 5/4, 6/4 and 8/4 Birch No. 1 C and B
300,000 " 10/4 Birch No. 1 C and B
500,000 " 12/4 " No. 1 C " B
400,000 " 16/4 " No. 1 C " B
} 400,000 ft. 18 months dry

Flooring trade

4,000,000 dry 4/4 Birch No. 1 and No. 2 Common
500,000 dry 4/4 Maple No. 2 C and B

Factories

200,000 ft. each 6/4 and 8/4 Maple No. 1 C and B
60,000 " 12/4 Maple No. 1 C and B
300,000 " 4/4 White Pine M. R.

We particularly specialize on Hardwoods selected for your especial purpose.

We invariably ship our own lumber and guarantee our grades. Grading according to last National Hardwood Association Rules.

We commend to your notice:

Our lumber is **reliable,** our shipments **prompt** and **accurate** and **receive personal supervision,** our grading **careful,** quality the **highest,** prices **consistent.** We have had **long experience.** We desire to **serve.**

Canada's Best

HIGH GRADE PINE DOORS

Plant of Benson & Bray, Limited, Midland, Ont.

No. 325

No. 380

No. 335

BENSON & BRAY, LIMITED, MIDLAND, ONTARIO

No. 535

No. 560

No. 505

Canada's Best

VENEERED DOORS

Not How Cheap, But How Good

Our Solid and Veneered Doors are built along this line.

They are all we claim for them and more.

Their popularity is evidenced by the thousands that are sold by us. They must be right – try them.

Make up your order now and

Show Them To The Trade

OUR GUARANTEE WITH EVERY DOOR

BENSON & BRAY, LIMITED, MIDLAND, ONTARIO

Wood Supply—Merriton, Ont. Pulp Mills

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The Riordon Pulp & Paper Co., Limited

Manufacturers of

Hawkesbury Spruce Sheathing, and Unbleached Sulphite Fibre Wood for Paper Mills. Lumber, Shingles, Clapboards, Railway Ties and Fence Posts.

Pulp Mills at: Merritton, Ont., and Hawkesbury, Ont.

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Sales Office:— Beaver Hall Square, Montreal.

Saw Mills at Calumet, Que.

Norway Spruce
White Pine

James G. Cane & Co.

Prices right
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TORONTO, ONT.

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The Best There is
in
Red and White
PINE

Wm. H. Bromley
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BROMLEY

Spruce
White Pine
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Birch

Get our stock list and prices.

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HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Birks Building, VANCOUVER, B. C.

You Can Beat The Government!

If You Use

"P. & W."

TAPS
DIES
REAMERS
DRILLS

THEY'RE MADE IN CANADA

and as good as you can import and

You Don't Pay the Duty

Guaranteed Too!!

SATISFACTION or your money back.

Pratt & Whitney Co.

of Canada, Limited

Dundas, Ontario

Montreal Winnipeg Vancouver

Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is posstively right, and prices will please

Timberland Lumber Co., Limited

Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.

Mills at Craigs on the B.C.E.R.
Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

The John Carew Lumber Company, Ltd.

Pine	Hemlock
Cedar	Ash
Basswood	Elm
Spruce	Birch
Maple	Tamarac

Wholesale and Retail

LUMBER, SHINGLES, LATH, RAILWAY TIES, END POSTS, HARD AND SOFT WOOD, CEMENT

Ripping, Resawing, Dressing and Matching in Transit

Hardwood Flooring
Kiln Dried and End Matched

Doors	Sash
Frames	Molding
Box Shooks	Crating

Office, Mills and Factory - LINDSAY, ONTARIO

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HAGER'S
LUMBER
IT'S CHEAPER

S. A. Hager & Son - Toronto

The Harris Tie & Timber Co.

OTTAWA, CANADA

Lumber Lath Shingles

Cedar Poles and Posts

Railway Ties - Piles

The Atlantic Lumber Co.

Manufacturers and Wholesale Dealers

American and Canadian Hardwood Lumber and Mahogany, Quartered and Plain, White and Red Oak a Specialty.

110 Manning Chambers - TORONTO
Phone Main 6386

HOME OFFICE, BOSTON, MASS.
Mills: KNOXVILLE, TENN., WALLAND, TENN.
FRANKLIN, VA.

Contract Sawing Our Specialty

Capacity about One Hundred Thousand feet Lumber and forty to fifty thousand pieces lath per day. Mill is equipped with double and single cut bands, also a small gang. All operating eight gauge saws, enabling us to secure maximum quantity log will produce.

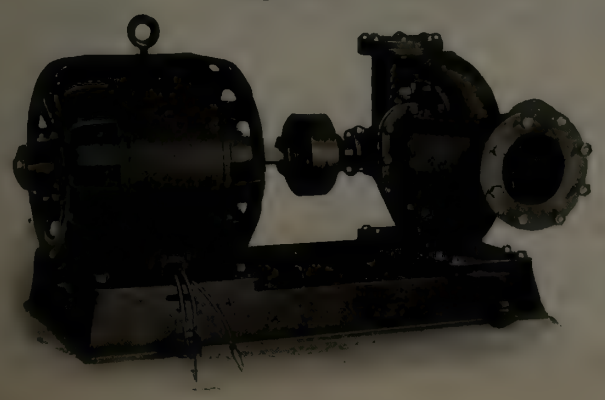
Excellent shipping facilities by rail and boat.

Stock For Sale

About first of July we shall commence the manufacture of our own logs, consisting largely of smooth knotted Red and White Pine and Spruce, product of which will be for sale. Inquiries solicited.

CHEW BROS.
Midland - - Ontario

Our first aim is maximum service and highest efficiency



Send Us Your Enquiries

The Smart-Turner Machine Co., Limited
Hamilton, Can.

TORONTO

We offer the following

NORWAY

125 M. ft. 2 x 6 in. Mill Run Clear Cut.
150 M. ft. 2 x 8 in. Mill Run Clear Cut.
100 M. ft. 2 x 10 in. Mill Run Clear Cut.
1 x 4, 5, 6 and 8 in. piled separately.
1 in., 1½ in. and 2 in. Clear and Clear Face.

SPRUCE

2 x 6 in., 12, 14 and 16 ft., good dry stock
8 x 8 in., 12, 14 and 16 ft., good dry stock

Leak & Company, Limited

18 Aberdeen Chambers, TORONTO

JOHN DONOGH & CO.

Wholesale Dealers

HEMLOCK
SPRUCE

Dry stock in all sizes. *Quick shipments.*

1205 TRADERS BANK BUILDING, TORONTO

MEMPHIS VENEER & LUMBER CO.

Manufacturers: Honduras Mahogany and Southern Hardwood Lumber

SAWN VENEERS

Mahogany, Quartered and Plain Oak and Quartered Red Gum

MEMPHIS - - - TENN.

JAMES E. STARK LUMBER CO.

Manufacturers: Quartered and Plain Oak

ASH

Poplar and Cypress **A large stock of Ash continually on hand**

MEMPHIS - - - TENN.

FRANK H. HARRIS LUMBER CO., LTD.

Sales Agents, 32 CHURCH STREET, TORONTO, ONT.

WHOLESALERS: Hardwoods, Oak Flooring, Chestnut, Walnut. Yellow Pine and B. C. Shingles Always in T ransit

Mixed Cars

Promptly Shipped

SEND US A LIST OF YOUR REQUIREMENTS AND WE WILL QUOTE AN ATTRACTIVE PRICE.

Oliver Lumber Co.

of Toronto Limited

Confederation Life Building

We Specialize in

PILING

Always on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet.

Wanted 1 in. and 2 in. Hemlock and Spruce. 1 in. Cull Hardwood.

WANTED—Contractors to take out piles during the summer months

ARTHUR N. DUDLEY

Lumber, Lath and Shingles

109 Stair Building Toronto **Phone M 6368**

FOR SALE

Spruce, White Pine Strips and Mill Culls, Norway and Hemlock

Quotations Promptly Made

The Elgie & Jarvis Lumber Co., Ltd.

18 Toronto Street, **TORONTO, ONT.**

We Have for Immediate Shipment:—

300,000 1″ No. 1 C. & B. Birch
60,000 2″ No. 1 C. & B. Maple
60,000 2″ No. 1 C. & B. Elm
100,000 1″ Cull Elm
50,000 2″ No. 1 C. & B. Birch
20,000 1″ No. 1 C. & B. Maple
150,000 1″ No. 1 C. & B. Elm

This stock was cut early, is dry, and was taken from an exceptionally good run of logs. We are quoting attractive prices on this lumber for prompt shipment.

SPEARS & LAUDER

Manufacturers & Wholesale Dealers
501 Kent Bldg., TORONTO

CAMERON & CO., LIMITED

OTTAWA — WHOLESALE — CANADA

OAK — FIR — WHITE PINE

Specialty --- Dimension Timber

HEMLOCK — YELLOW PINE — NORWAY PINE

Lumber
Lath
Shingles

EASTERN AGENTS
NORTH PACIFIC LUMBER CO., Limited
MILLS AT - - BARNET, B.C.

TIES
POLES
POSTS

ESTABLISHED 1855

THE McGIBBON LUMBER CO.
OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

The Saw-Mill Owners Sales Co.
Representing 22 Mills - 6 Branches

What about a mixed car of mouldings, turnings, doors with shingles and sidings.

Send for our latest catalogue.

It will pay you better than making them yourself. Lumber of all kinds.

Your correspondence solicited.

Head Office: Coristine Bldg., MONTREAL

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**
Room 716 Railway Exchange, CHICAGO, ILLINOIS

Charlemagne & Lac Ouareau Lumber Co.
Mills: Charlemagne, Montcalm, St. Adele

The Gres Falls Company
Mills: Three Rivers and Cap Madelaine

St. Gabriel Lumber Co., Limited
Mill: St. Gabriel de Brandon
Head Office: 524 Board of Trade, Montreal, P.Q.

Manufacturers of
Spruce and Pine Lumber and Ground Wood Pulp

J. Burstall & Company
Timber and Lumber Merchants

Shippers of All Kinds of Lumber and Timber

Head Office, Quebec, Que.

Branch:
Montreal—Board of Trade Bldg.

J. Burstall & Company, Ltd.
57 Gracechurch St. E. C., London, England

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, **Cincinnati, Ohio.** *Write for prices.*

Service First

He profits most who serves best.

Satisfaction Guaranteed

Stearns Quality Stock

65 M. 1 x 6 in. and wider 1s and 2s End Dried White Basswood.
22 M. 1 x 6 to 8 in., 10 and 12 ft., firsts and seconds Basswood.
35 M. 1 x 7 and 8 in. firsts and seconds Basswood.
20 M. 1 x 4 in. No. 1 Common Basswood (clear all in).
25 M. 1 x 5 in. No. 1 Common Basswood (clear all in).
30 M. 1 x 5 and 6 in. No. 1 Common Basswood.
75 M. 1 x 7 in. and wider No. 1 Common Basswood.
90 M. 1 x 6 in. and wider No. 1 Common Beech.
50 M. 5/8 No. 2 Common and Better Beech.
70 M. 4/4 No. 2 Common and Better Beech.
95 M. 6/4 No. 2 Common and Better Beech.
80 M. 8/4 No. 2 Common and Better Beech.
60 M. 1 x 6 in. and wider No. 1 Common Birch (Red all in).
45 M. 1 x 6 in. and wider firsts and seconds Soft Gray Elm.
68 M. 1 x 6 in. and wider No. 1 Common Soft Gray Elm.
79 M. 1 x 6 in. and wider No. 2 Common Soft Gray Elm.
92 M. 4/4 No. 2 Common and Better Soft Maple.
No. 1 and 2 Common all 6 ft. and longer.

The Stearns Salt & Lumber Co.

Ludington, Michigan

W.M. RITTER LUMBER COMPANY

Below is List of Dry Lumber We Can Ship Promptly

POPLAR.
5/8 18 to 23 panel and No. 1, 1 car.
4/4 24 to 27 panel and No. 1, 2 cars.
4/4 7 to 17 firsts and seconds, 3 cars.

RED OAK.
4/4 firsts and seconds, 2 cars.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 1 car.
4/4 No. 1 common, 5 cars.
6/4 No. 1 common, 1 car.
8/4 No. 1 common, 1 car.

WHITE OAK.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 2 cars.
8/4 firsts and seconds, 2 cars.
4/4 No. 1 common, 3 cars.
5/4 No. 1 common, 2 cars.
6/4 No. 1 common, 2 cars.
8/4 No. 1 common, 3 cars.

BASSWOOD.
4/4 firsts and seconds, 6 cars.
4/4 No. 1 common, 3 cars.

CHESTNUT.
5/4 firsts and seconds, 2 cars.
6/4 firsts and seconds, 2 cars.
8/4 firsts and seconds, 1 car.

The above is a list of dry stock which we can ship promptly. All our own manufactured stock, bank sawed and thoroughly dry. Do not place your order before writing for prices.

CANADIAN REPRESENTATIVE:

John Hall, Box 32, Toronto, Canada

Phone College 6997

W.M. RITTER LUMBER COMPANY — COLUMBUS, OHIO

CAFLISCH BROTHERS

HARDWOOD LUMBER

Wholesale Distributing Yards and Sales Offices

JAMESTOWN, N.Y.

Mills at—

Union City, Pa. **Monticello, Ky.**
Hambleton, W. Va. **Ross Point, Ky.**

Full assortment of grades and thicknesses in Quartered and Plain Oak, Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS. ***IMMEDIATE SHIPMENTS.***

Hoffman Brothers Company

Fort Wayne, Indiana

Manufacturers of Hardwoods—Any Thickness From

1/30″ SLICE CUT VENEER

1/20″ SAWED VENEER

to

2″ BAND SAWED LUMBER

Specialty:

QUARTERED WHITE OAK

Everything in Lumber

Wholesale and Retail

Write or wire us for your requirements

The McLennan Lumber Co.

Limited

Montreal, Canada

Massee & Felton Lumber Co.

HARDWOOD LUMBER

***Mills:* MACON, GEORGIA**

SHIPPING DRY STOCK LIST

QUARTERED RED GUM

4/4 1st and 2nd	160,000
4/4 No. 1 Common	285,000
4/4 No. 1 Common Figured	108,000

PLAIN RED GUM

3/8 1st and 2nd	21,000
4/4 1st and 2nd	320,000
5/4 1st and 2nd	11,000
5/8 No. 1 Common Red	58,000
4/4 No. 1 Common Red	185,000
6/4 No. 1 Common Red	6,000

SAP GUM

5/8 1st and 2nd	16,000
1/2 1st and 2nd	10,000
5/4 1st and 2nd	12,000
6/4 1st and 2nd	45,000
4/4 Panel 18 in. and up	32,000
5/8 No. 1 Common Sap	35,000
3/4 No. 1 Common Sap	36,000
4/4 No. 1 Common Sap	175,000
5/4 No. 1 Common Sap	27,000
6/4 No. 1 Common Sap	40,000
4/4 No. 2 Common	600,000
4/4 No. 3 Common	400,000

BEECH

4/4 Log Run	70,000

HICKORY

8/4 No. 1 Common and Better	40,000

ELM

4/4 Log Run	34,000
6/4 Log Run	70,000

ASH

4/4 No. 1 Common	12,500
6/4 No. 2 Common	6,000

CYPRESS

4/4 Log Run	6,000
4/4 No. 1 Common	5,000
4/4 No. 1 Shop	6,000

PERSIMMON

5/4 Log Run	2,000
6/4 Log Run	8,000

SYCAMORE

4/4 Log Run	106,000

OAK

4/4 No. 1 Common Quartered White Oak	12,000
4/4 No. 1 Common Quartered Red Oak	1,600
3/4 No. 1 Common Plain White Oak	15,000
4/4 No. 1 Common Red Oak	110,000
4/4 No. 2 Common Red and White Oak	70,000
4/4 1st and 2nd Red Oak	25,000
4/4 No. 3 Common Red and White Oak	85,000
4/4 Sound and Wormy Oak	20,000
3/4 No. 2 Common Red and White Oak	15,000

Ready for Prompt Shipment

→ KNIVES ←

Good Steel Carefully Manufactured Properly Tempered

Ask for Catalogue and Quotations

Galt Knife Company, Limited

GALT - ONTARIO

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.

TORONTO, CANADA

TRADE T MARK
(REGISTERED)

DRY WHITE PINE

Low price for immediate shipment

2 x 7	12/16	6/4 x 8/10	12/16
2 x 8	12/16	3 x 7	12/16
2 x 9	12/16	3 x 8	12/16
6/4 x 8	12/16	3 x 9	12/16

Watson & Todd, Ltd., Ottawa, Ont.

Wholesale Lumber — Car and Cargo Shipments

JOHN M. DIVER
DETROIT, MICH.

"Everything in Lumber"

Large Stocks of Sized or Rough Hemlock and Yellow Pine

Peeled Cedar Fence Posts 5 ft. and up to 8 ft., carried in stock at Detroit. Immediate Shipment.

Write for prices

Timber for R. R. Construction and Commercial Purposes, a Specialty.

OFFICE:—413 Hammond Bldg.
Phone Cadillac 2275

The

Georgian Bay Lumber Co.

Limited

Waubaushene, Ontario

Manufacturers of High Grade

Lumber and Laths

President and General Manager D. C. CAMERON, Winnipeg
Assistant General Manager WM. ROBERTSON, Vancouver
Secretary-Treasurer, WILSON BELL, Winnipeg

The Rat Portage Lumber Co. Ltd.

Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

JOHN GILLIES, President
DAVID GILLIES, Vice-President.
J. S. GILLIES, Sec.-Treas.

Established 1873

GILLIES BROS.

Limited

Mills and Head Office
BRAESIDE, ONT.

Manufacturers of

WHITE PINE

RED PINE — **SPRUCE**

New York City: Guy E. Robinson, 1123 Broadway

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REDWOOD

The Pacific Lumber Company

John D. Mershon Lumber Company

Saginaw, Mich. — New York, No. 1 Madison Ave.

XXX EDGE GRAIN XXXX

SHINGLES

(FRESH WATER MILLS)

BARCLAY SHINGLE MILLS LIMITED

Mills at HANEY, B.C.

Office 532 Granville St. VANCOUVER P.O. Drawer 520

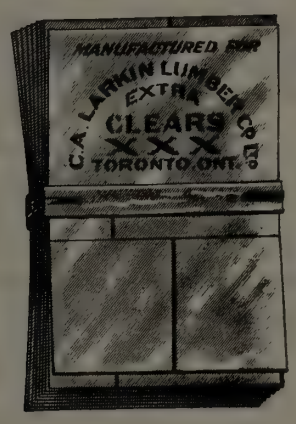
627 Confederation Life Building

C. A. LARKIN LUMBER COMPANY Limited

Toronto, Canada

Wholesale Lumber

Extra XXX Red



Cedar Shingles

White Pine Red Pine Spruce

Lumber and Lath

SOUND TIMBER BONDS ARE LIKE WHEAT IN THE BIN

And this section of the world the most attractive market.

We negotiate long time loans of from $50,000 upwards on standing timber.

Reports and estimates on timber, River Improvements, Surveys and estimates of costs for logging railroads in any part of the world.

Send to-day for our Booklet

ESSENTIAL FACTS ABOUT TIMBER HOLDINGS

Cruising and Engineering Department

L. E. CAMPBELL LUMBER CO.

2234 Dime Bank Bldg. - - DETROIT, MICH.

For Immediate Shipment

75,000 ft. of 8/4 in. Basswood, No. 2 C. and B., winter sawn.

100,000 ft. of 4/4 in. Mill Run Basswood, dead culls out, winter sawn.

100,000 ft. of 4/4 in. Soft Elm, culls out. This Elm is the full run of the logs, no heavy having been cut out.

We have cars of Hardwood and Yellow Pine in transit from the South all the time. Write or phone us your requirements. We can ship mixed cars the day we receive your order.

Glengarry Lumber Company, Limited

BERLIN :: ONT.

St. Francis Basin Hardwoods

All our lumber is band sawed and averages excellent widths and lengths.

Our Gum is dry, flat, bright and free from kinks and twists.

KRAETZER CURED RED GUM

Unselected.

24,000 ft. 3/4 firsts and seconds.
15,060 ft. 4/4 Panel, 18 in. and up.
45,800 ft. 4/4 Boxboards, 13-17 in.
120,000 ft. 4/4 Firsts and seconds, 6 in. and up.
37,750 ft. 4/4 No. 1 Common.
62,920 ft. 5/4 Firsts and seconds.
50,000 ft. 5/4 No. 1 Common.
89,228 ft. 6/4 Firsts and seconds
75,000 ft. 6/4 No. 1 Common.
9,100 ft. 8/4 No. 1 Common and Better.

Selected Red

97,390 ft. 4/4 Firsts and seconds.
173,115 ft. 4/4 No. 1 Common.
44,792 ft. 5/4 Firsts and seconds.
135,000 ft. 5/4 No. 1 Common.
76,574 ft. 6/4 Firsts and seconds.
45,868 ft. 6/4 No. 1 Common.
19,400 ft. 8/4 No. 1 Common.

Selected Quartered Red

31,370 ft. 4/4 No. 1 Common and Better.
960 ft. 5/4 No. 1 Common and Better.
4,980 ft. 6/4 No. 1 Common and Better.
5,325 ft. 12/4 No. 1 Common and Better.

(Air Dried, on Sticks Over One Year, Bone Dry)

Selected Red.

91,740 ft. 4/4 Firsts and Seconds.
144,185 ft. 4/4 No. 1 Common.
5,800 ft. 5/4 Firsts and Seconds.
62,942 ft. 6/4 No. 1 Common.

Selected Quartered Red

3,510 ft. 4/4 Firsts and Seconds.
35,080 ft. 4/4 No. 1 Common and Better.
20,000 ft. 4/4 No. 1 Common.
5,700 5/4 No. 1 Common.
18,700 ft. 6/4 No. 1 Common.

PLAIN RED OAK

67,250 ft. 4/4 Firsts and Seconds.
88,227 ft. 4/4 No. 1 Common.
29,409 ft. 4/4 No. 2 Common.

PLAIN WHITE OAK

29,375 ft. 4/4 Firsts and Seconds.
81,374 ft. 4/4 No. 1 Common.
27,116 ft. 4/4 No. 2 Common.
17,250 ft. 12/4 1s and 2s, sap no defect.

QUARTERED WHITE OAK

5,200 ft. 4/4 No. 2 Common.
14,035 ft. 4/4 Strips, 3 to 5½ in., sap no defect.

ELM

3,750 ft. 4/4 No. 2 Common and Better.
63,220 ft. 5/4 No. 2 Common and Better.
66,720 ft. 6/4 No. 2 Common and Better.
6,120 ft. 12/4 No. 2 Common and Better.

SOFT MAPLE

7,040 ft. 8/4 No. 2 Common and Better.

We carry on our Cincinnati yard a complete stock of *TENNESSEE AROMATIC RED CEDAR* which we can ship in car lots or less.

Let us quote you prices on any of the above stock delivered at your station.

Geo. C. Brown & Company, PROCTOR, ARK.

20 Miles from Memphis on C. R. I. & P.

YELLOW PINE FINISH

SOFT — CORKY

CAREFULLY SELECTED FOR PLANING MILLS

RED - GUM - SAP

Selected for Furniture Trade

All Thicknesses and Grades

RED CEDAR SHINGLES

REDWOOD

FIR

OAK

LOUISIANA RED CYPRESS

WHITE and RED

PLAIN and QUARTERED

ASH, POPLAR, CHESTNUT

HEMLOCK

WHITE PINE

FROM CANADIAN MILLS

PROMPT SHIPMENTS* CAREFUL GRADING

WISTAR, UNDERHILL & NIXON

PHILADELPHIA

Canadian Representative: Gilbert B. Woodhull

"Lumber of a Kind That Will Sell"

That characterization of

ARKANSAS SOFT PINE

was made by a dealer who bought it because he needed lumber that would enable him to build up his business in the face of strong competition.

Here are other of the very remarkable statements he makes regarding **the kind of lumber it pays to buy and to sell:**

...and we do this without handling coal ... other side line. I know what kind of adver... pulls strongest with me, and I try to make mine pull in the same way. I got in the first car of Arkansas pine that ever came into this part of New England, and I did that because of the good, straightforward advertising that those people did in the AMERICAN LUMBERMAN. It seemed to me from their ad that they were good people to deal with and that the lumber was of a kind that would sell well here. Both of these things proved to be true. When the first car came in I took pains to send a little of it out to each of the contractors who were doing business with me, telling them what it was, of course. That's all the introduction it needed.

"Of course where bills are figured so widely the... very little of the old association idea of the d... of trade. If two towns are ten miles apa... don't divide up the business so tha... ve miles f... is...

—From American Lumberman, page 34, July 18, 1914.

Are you "sending **Arkansas Soft Pine** to the contractors with whom you are doing business" and are you "telling them what it is?"

Are you using good lumber, **Arkansas Soft Pine,** to cement existing relations between yourself and your customers?

Arkansas Soft Pine is enabling scores of dealers to secure and retain trade. There exists no reason why you should not be numbered among the scores who have been and are being benefited. **ARE YOU?**

Edgar Lumber Company,	Wesson, Ark.	Wisconsin & Arkansas Lumber Co.,	Malvern, Ark.
Fordyce Lumber Company,	Fordyce, Ark.	Arkansas Land & Lumber Company,	Malvern, Ark.
Freeman-Smith Lumber Company,	Millville, Ark.	Arkansas Lumber Company,	Warren, Ark.
Gates Lumber Company,	Wilmar, Ark.	Cotton Belt Lumber Company,	Bearden, Ark.
Southern Lumber Company,	Warren, Ark.	Crossett Lumber Company,	Crossett, Ark.
Stout Lumber Company,	Thornton, Ark.	Eagle Lumber Company,	Eagle Mills, Ark.
Valley Lumber Company,	Reader, Ark.		

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office:—Pacific Building, VANCOUVER, B. C.**

Winter Sawed Hardwoods Ready for Shipment

4/4 Log run Maple	350,000 ft.	6/4 No. 1 C.&B. Maple	60,000 ft.
5/4 No. 1 C.&B. "	40,000 ft.	8/4 No. 1 C.&B. "	200,000 ft.
4/4 Log run Beech	250,000 ft.		
6/4 "	15,000 ft.		

We have recently installed a complete planing mill and are now in a position to do dressing of any kind in short notice.

Spruce and Hemlock Timbers a Specialty

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

We invite correspondence re

"Dalhousie" Brand N. B. Cedar Shingles of all grades

Special Prices for shipment to

All Ontario Points

Dalhousie Lumber Co., Limited

Dalhousie, New Brunswick

Agents for Ontario **R. Laidlaw Lumber Co., Limited** Toronto

T. H. Garrett Lumber Co.

Manufacturers of . . . . . **YELLOW PINE LUMBER**

Mills:—
Selma, La.
Jena, La.
Melton, La.
Waukegan, Tex.
Buena Vista, Ark.

Long Leaf Timbers, Short Leaf Finish and Railroad Material

Send your inquiries and orders to:—

General Sales Office

Suite, 1220 Chemical Building, ST. LOUIS, Mo.

Hilke Stacker

Hilke Lumber Stacker

A Saver of Space, Lumber, Time and Money

This machine will pay for itself from one to six times per annum, all depending on the scope of its opportunities.

It reduces by half the cost of piling and unpiling lumber.

It saves half the cost of alley floors or roads.

It reduces by half the number of pile bases.

It cuts squarely in two the cost of roofing lumber.

It saves just half your yard space, and this always means much even where land is very cheap, because it costs money and lots of it to haul lumber around a yard.

It takes lumber down from high or low piles with perfect freedom from breakage or injury.

It sets the pace for the men and helps them to do much work with little labor.

It is as mobile as the men who operate it and when placed in front of a pile is instantly ready for work.

It removes at once and forever the need of using elevated tramways, with their great first cost, impaired circulation and imperfect drying below their surface.

It is a maker for efficiency because it is itself so efficient that it naturally turns the lumberman's mind toward other possible yard economies of which there are usually many never before observed.

It is patented in the United States and Canada by Henry C. Hilke.

Ask us for a catalogue.

A 30-foot Hilke Piler in the yard of Shevlin Clark Company, Ltd., Fort Frances, Ontario, Canada.

Hilke Stacker Company

1 Broadway, New York

We are the Sole Owners of

and are prepared to manufacture at our Factory in Hamilton, Ont. and to supply the Canadian trade with any of the devices covered by the following patents of the Dominion of Canada:

CANADIAN PATENTS

No. 79,896	Mar. 24, 1903	Improvement in babbitting devices.
No. 107,380	Sep. 10, 1907	Cutter Head Knife Sharpener.
No. 108,490	Nov. 12, 1907	Band Saw Tensioning Device.
No. 109,194	Dec. 17, 1907	Adjusting Means for Planer Heads.
No. 109,845	Jan. 21, 1908	Adjusting Means for Planer Heads.
No. 110,216	Feb. 11, 1908	Variable Speed Mechanism.
No. 110,217	Feb. 11, 1908	Variable Speed Devices.
No. 113,311	Aug. 4, 1908	Driving Mechanism for Planers.
No. 113,478	Aug. 11, 1908	Sanding Machines.
No. 115,919	Jan. 5, 1909	Knife Holder for Cutter Heads.
No. 117,080	Mar. 9, 1909	Multiple Board Gauges.
No. 120,467	Sep. 14, 1909	Multiple Gauges.
No. 120,468	Sep. 14, 1909	Locking Mechanism for Gauging Devices.
No. 120,610	Sep. 21, 1909	Feeding Mechanism for Saws.
No. 121,235	Oct. 12, 1909	Feed and Adjusting Mechanism for Saws.
No. 121,236	Oct. 12, 1909	Adjusting Means for Saws.
No. 122,023	Nov. 23, 1909	Adjusting and Grinding Planer Knives.
No. 122,172	Nov. 30, 1909	Feed Rolls for Planers.
No. 122,341	Dec. 7, 1909	Holding Device for Planer Head Bits.
No. 123,041	Jan. 4, 1910	Cutter Heads for Grooving Machines.
No. 123,239	Jan. 18, 1910	Fastening Means for Planer Knives, etc.
No. 127,643	Aug. 23, 1910	Bearings.
No. 128,664	Oct. 18, 1910	Holding Devices for Planer Heads.
No. 128,665	Oct. 18, 1910	Grinding and Jointing Appliances for Planers.
No. 128,797	Oct. 25, 1910	Planer Heads.
No. 128,918	Nov. 1, 1910	Saw Mill Carriages.
No. 129,089	Nov. 8, 1910	Double Acting Set Works.
No. 129,200	Nov. 15, 1910	Abrading Cylinders.
No. 129,343	Nov. 22, 1910	Planer Knife Sharpeners.
No. 129,489	Nov. 29, 1910	Improvements in Lathes or Turning Machines.
No. 137,636	Jan. 2, 1912	Spiral Indicator.
No. 138,258	Feb. 6, 1912	End Thrust Bearings.
No. 139,018	Mar. 12, 1912	Planer Knife Holding Devices.
No. 139,019	Mar. 12, 1912	Matching Planer Heads.
No. 139,020	Mar. 12, 1912	Expansion Cutter Heads.
No. 139,021	Mar. 12, 1912	Clamping Devices for Woodworking Machines.
No. 139,310	Mar. 26, 1912	Matching Planer Heads.
No. 139,311	Mar. 26, 1912	Tensioning Device for Feed Rolls.
No. 140,031	Apr. 30, 1912	Steady Rest for Wood Turning Machines.
No. 140,514	Mar. 21, 1912	Straight Opening Drums.
No. 144,261	Nov. 26, 1912	Profile Cutter Heads.
No. 144,579	Dec. 10, 1912	Adjustable Guides.
No. 148,441	June 10, 1913	Chipbreaker for Planers.
No. 148,936	July 1, 1913	Adjusting Devices.
No. 148,937	July 1, 1913	Board Cleaners.

Berlin Machine Works, Limited

Hamilton, Canada

SPUD

for Bark Peeling, fills a long felt want.

Made of Forged Steel with substantial Sockets uniform in size.

Prompt shipments in any quantity desired.

The

Thomas Laughlin Company

Portland, Maine, U.S.A.

We also manufacture a large line of CONTRACTORS' SUPPLIES and MOTOR BOAT FITTINGS.

If a dealer, ask for our 450 page catalogue.

Showing columns installed nearly 50 years ago.

BRENNEN'S

Building Material is Reliable

Columns, Doors and Interior Woodwork installed by us nearly 50 years ago are today in perfect condition.

Care and skill in manufacturing are bound to tell in the long run. Many a dealer has built up a prosperous business and a lasting reputation by sticking to BRENNEN'S Building Materials.

We manufacture a complete line of staved columns, pine and veneered doors, pine and hardwood trim, sash, balusters, newels, etc.

M. Brennen & Sons Mfg. Co., Limited

Hamilton, - Ontario

Annual Sales over 5,000,000

Hoyt Babbitt Metals

Annual Sales over 5,000,000

Our 35 years of experience in the mixing of babbitt metals has enabled us to arrive at those proportions in mixing which make for cool, non-friction and lasting bearings.

Our "Frost King" Babbitt Metal is specially mixed for high speed machinery and engine work, sawmills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery and all classes of stationary engines.

If your dealer does not stock FROST KING send us a money order for your requirements. Price 30c. per lb. Fort William and East; West of Fort William 35c. delivered to your nearest railway station, packed in 30lb. and 60lb. boxes.

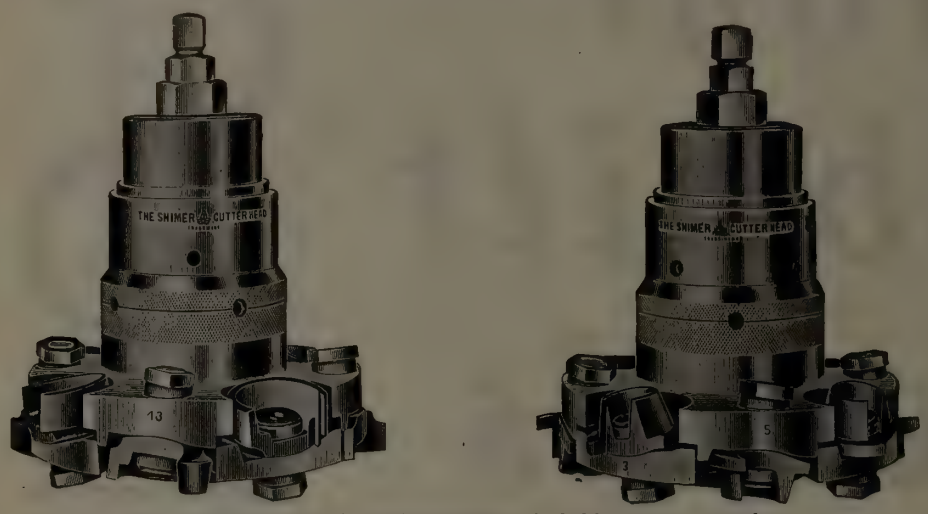
For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, 40c. per lb.; West of Fort William 45c. per lb., delivered to your nearest railway station, packed in 30lb. and 60lb. boxes.

Hoyt Metal Co.

Toronto, Ont.

New York *St. Louis* *London, Eng.*

THE SHIMER CUTTER HEADS



The "Shimer Limited" with expansion $72.46 per set, complete.

There Are No Delays

when an order for mill work comes into a planing mill where Shimer Cutter Heads are in use. No matter whether the order is for Flooring, Ceiling, Siding, Wainscoting, Ship Lap, or Door and Sash mouldings, there is no waiting until a high priced man forms cutters to do the job. The Shimer Heads are simply slipped on the spindles and the machine starts in to turn out uniform patterns of quality work.

When it is necessary to sharpen cutters there is none of the usual delay in touching up the shape, because Shimer Cutters never change their shape when being sharpened.

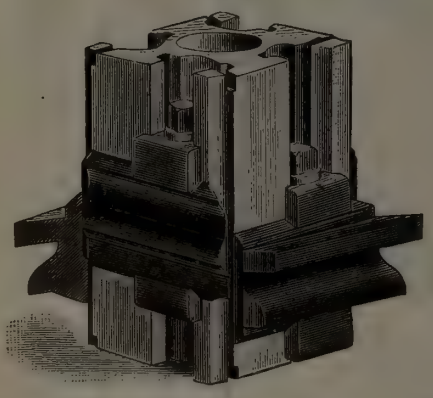
The Permanent Shape of the Shimer Cutter insures uniform patterns—insures that patterns made today will match with those made at any time in the past or future. It prevents all over-runs and left-overs from getting into the scrap pile and insures their sale along with the next batch put through the machine.

The saving in time of the men and machines—the saving in stock and the fact that many pieces of a cross-grained nature are saved from the offal pile, all work together for the prosperity of the mill man.

Shimer Cutter Heads must be seen at work to be appreciated. That's the reason we are so free in offering trial. Their good points have been demonstrated in so many thousands of mills that we welcome your order for a set on trial.

Send it today!

The Shimer Combination Head for Doors, Sash, Blinds and Mouldings



The Head illustrated herewith is intended more particularly for the mills which make only a few mouldings or Door and Sash patterns and change work several times a day.

The outfit consists of one Combination Head with one set of Sash Bits, one set of Door Bits, one set of Cope Heads and Door Cope Bits and two Sash Cope Bits for the lower Door Cope Head.

The Bits are quickly changed and set to the gauge, when the Door and Cope moulds or the Sash and Cope moulds will match to a nicety. Bit can also be adjusted for different thicknesses of Door and Sash mould.

Price of outfit complete $47.31, guaranteed to be made of the best materials and sent on trial.

Our Popular Cutter Heads

Figs. 202 and 203 are the leading tools, having Conical Duplex Bit Seats and The Shimer Cutter Head Expansion. Flooring Bits will work from 13/16 to 1¼-in. in thickness with tongue and groove proportions expaned to suit.

Price, net, complete with one set of flooring Bits, the gauges for setting the Bits and wrench $40.95

Extra Bits for Flooring 11.44

Extra Bits for ceiling 10.40

With 4 bits to each head.

Jointer Heads

Figs. 54 and 55, with four Bits in line of work, shear the cut downwardly to insure a sharp and clean upper edge. They cut clean and free and are shipped out under our guarantee to give satisfaction.

Price, Heads, complete with Bits for 15/16 to 1¼-in., net only $31.20

Extra Bits 1¼-in. face, the set 10.40

Extra Bits, 2-in. face, the set 12.48

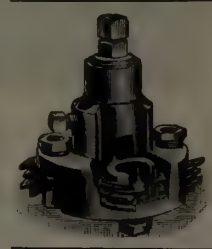
O. G. Batten Heads

Figs. 48 and 49 represent our best tools for this work, having 3 Bits in line of cut so arranged upon their seat inclines as to protect all but cutting edge against friction and wear.

Price, two Heads, complete with Bits, net only $31.98

Extra Bits, each, net 2.08

Double Ceiling Heads



Figs. 45 and 46 are made in solid section, steel forged, with Bits of special design to cut two tongues on one edge of board, and two grooves on opposite edge, to be re-sawed for two thin boards tongued and grooved. Very complete.

Price, with one set of Bits, net $40.94

Extra Bits, per set of (8) 16.64

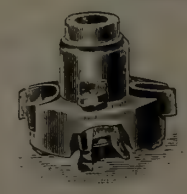
Ship Lap Heads

Figs. 38 and 39 are made of steel forgings, in solid section, designed especially for heavy duty. The bit seats have the latest improved slants to provide free cutting edges, and we sell them at the following low and net prices:

Heads with one set of Bits to work 15/16 to 1½-in. thick, net $34.84

Extra set of Bits 11.96

Door, Sash and Coping Tools



That save all the hand fitting. No changing of patterns, therefore, no trouble in framing door and sash parts when matched with the Shimer Cutter Heads.

DOOR AND SASH HEADS

Fig. 82, solid flange, Door Head $10.75
Fig. 84, Expansion Door Head 13.35
Fig. 86, solid flange, Sash Head 9.75
Fig. 206, Expansion Sash Head 12.35
Bits to work 1-in. to 1¼-in. Doors, 4.. 7.28
Bits extra to work 1 to 1¼-in. Sash (2 Moulded Bits, $4.30; 2 Rabbeting Bits, $2.86) 7.16

COPE HEADS

Fig. 83, Cope Heads (2) $12.90
Coping Bits, each 1.43

The Shimer Box Board Matching Heads

make a uniform cut and close fit, as well after years of use as when new, with no friction upon the Bits. For thicker material the Bits can be expanded.

Price for two Cutter Heads to match ⅛ to ½ inch, $29.15.

We also furnish when desired a Yoke Mandrel with self-oiling boxes, boxed f.o.b. Galt, $11.05.

Samuel J. Shimer & Sons, Inc.

Milton, Pa., U.S.A. — — — Galt, Ontario, Canada

View of Mills at Victoria Harbor, Ont.

The Victoria Harbor Lumber Company

Limited

MANUFACTURERS OF

LUMBER
LATH and
SHINGLES

HEAD OFFICE :

12-14 Wellington St. E., TORONTO, ONT.

F. N. WALDIE, PRESIDENT R. S. WALDIE, VICE PRES W. E. HARPER, SECRETARY

128,350 Laths in Ten Hours

Five-Saw Lath-Mill

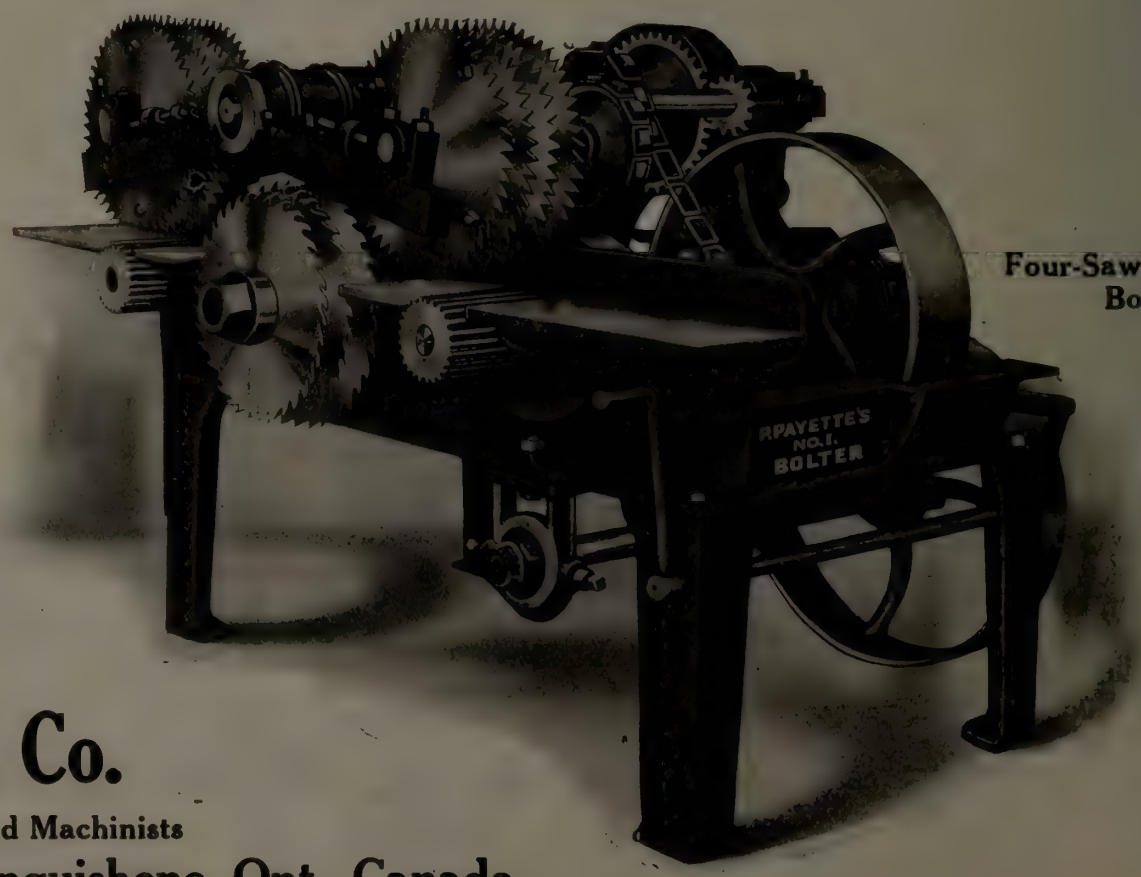
Our Lath-Mill and Bolter have made a test cut in ten hours of 128,350 four foot laths, 1 1/2 in. by 3/8 in., counted, tied and piled.

We also make a full line of Lath-Mill and Picket-Mill Machinery, for mills, both large and small.

We also manufacture the following High-Grade Saw-Mill Machinery:—New Modern Saw-Mill Carriages, with either three or two head-blocks; P. Payette's New Patent Saw-Mill-Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang-Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.



Four-Saw Bolter

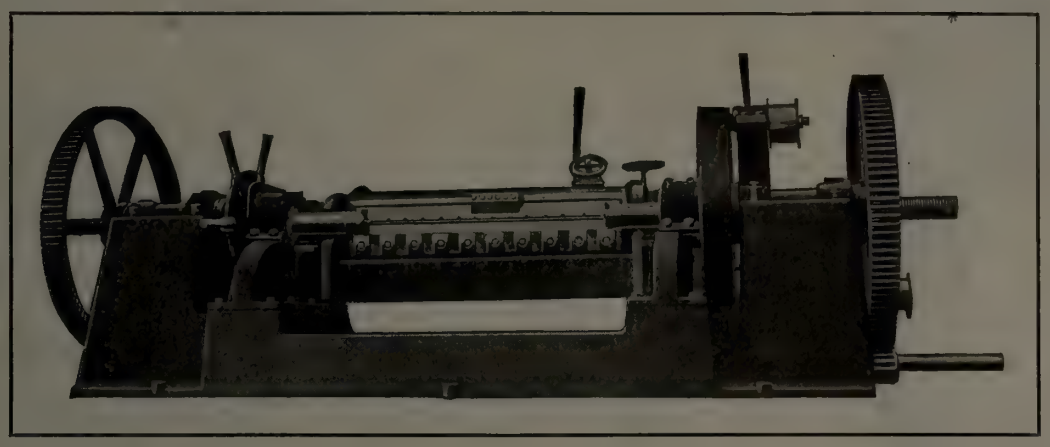
P. Payette & Co.

Engineers and Machinists

Penetanguishene, Ont., Canada

"MERIT" LINE OF VENEER MACHINES

Standard of the World



The "Merit" Veener Lathe

built on a **one-piece** frame, open and unobstructed on the top, has a third bearing for each spindle supplied with readily replaced bushing or short sleeve, out pitch for knife bar and unique pressure bar. Do you know what this all means and amounts to?

Perhaps not, but there are several hundred manufacturers who do, and we will give you their names if you like. We will also gladly explain it all to you if you will let us know that you are anxious to look into the matter.

Merritt Manufacturing Company

(***One hour's ride by trolley from Niagara Falls***)

Lockport, N. Y.

The **Peavey Manufacturing Company**

Parker Street, Brewer, Maine

are now manufacturing their improved

Peavey Patent Cant Dog

with Taper Solid Socket, all in one piece.

This is the **Lightest, Strongest and Most Practical Cant Hook made.**

We carry a large assortment in stock comprising five sizes and are prepared to fill orders promptly.

Malleable Clasp

CANT HOOKS

with extension Toe Rings, Duck Bill or Round Bill Hooks.

Our New Catalogue showing full line of Lumbering Tools will be ready soon.

Send us your name now and get it on our mailing list.

It's Coming

Better Times
And a
Bigger Demand
For Timber

We are encroaching steadily on our timber supply.
It is not inexhaustible.
The inevitable result will be a competitive demand for timber.
You know what happens to prices when buyers begin to compete.
Before "It Comes," before demand sets in at full flood,

Investigate and BUY

James D. Lacey & Company

Timber Land Factors

Chicago, Ill., 1750 McCormick Building
Portland, Ore., 1313 Northwestern Bank Bldg.
Seattle, Wash., 1009 White Building

The Genuine HOE Chisel-Tooth Saw

Special Flanged Shanks and Superior Bits for Hardwood

OVER 80,000 NOW IN USE IN ALL PARTS OF THE WORLD
HIGHEST QUALITY AVOID IMITATIONS

HOE HAS NO EQUAL

Write for Saw Catalogue to

R. HOE & CO. 504-520 Grand Street, NEW YORK CITY

All Our Babbitt Metals are made up to FORMULA not down to PRICE

Scientists have told us where we came from and preachers where we are going, and now our fundamental duty is to accomplish the most good in life.

If we want to live well we must render service to our fellow men.

To give service to all users of Babbitt metals has been our one great aim. The enormous growth of our sales is excellent testimony that our efforts are appreciated.

WE HAVE TWENTY MORE REASONS JUST AS IMPORTANT AS THESE—

6 Reasons

Why You Should Specify

Harris Heavy Pressure

It will give excellent service.
It will not crack or squeeze out.
It will run cool at any speed.
It is copper coated and copper hardened.
It is known as the Babbitt Metal without a fault.
It is the best for general machinery bearings.

WE MANUFACTURE IN CANADA

AND

All our babbitt metals give excellent service

For a quarter of a century we have had a reputation for high quality. Send an order to our nearest factory.

The Canada Metal Co., Ltd.

Head Office and Factory, **Toronto** *Branch Factories,* **Winnipeg, Montreal**

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,
December 20th, 1912.

Dominion Regulations Respecting Timber, Minerals and Homestead Lands

Timber on Dominion Lands

Licenses to cut timber on Dominion lands in the provinces of Manitoba, Saskatchewan and Alberta, the Northwest Territories, the Railway Belt and the Peace River tract of three and one-half million acres in the province of British Columbia, shall be disposed of by public auction at an upset price fixed by the Minister. The auction shall be held at the office of the Dominion Timber Agent for the district. Berths shall not exceed twenty-five square miles; shall be surveyed by a Dominion Land Surveyor, and thoroughly cruised by a timber cruiser employed by the Department. The expense of the survey shall be charged to the successful bidder.

Purchases of $1,000 or under shall be paid in cash at the time of sale. Purchases over $1,000 shall be paid partly in cash at the time of sale and the balance in instalments. The licensee shall pay an annual ground rental of $5 per square mile, except for lands west of Yale, B.C., in which case the annual rental shall be 5 cents per acre.

The dues on the principal timber products cut under license are as follows:—

Sawn lumber 50 cents per thousand feet, board measure.

Piling and cribbing one-half cent per lineal foot.

Railway ties 8 feet long, 1½ cents each and one-quarter cent for each additional foot.

Yearly Permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

Timber in Forest Reserves

The Director of Forestry may approve of contracts for the sale of timber from Dominion Forest Reserves up to 5,000,000 feet, board measure, in any one sale, by tender at an upset price. The timber is sold, after due advertisement, and not more than five years is allowed for removal. Applications for sales of timber under 5,000,000 feet, board measure, should be made to the Forest Supervisor, on forms which may be secured from him, and should be accompanied by a deposit of $50 to ensure the submission of a tender when the sale is advertised.

Each tenderer must submit with his tender as a guarantee deposit to secure the fulfilment of the terms of the contract, an amount equal to one-fifth of the estimated dues at the upset price, when the total dues do not exceed $5,000 and one-tenth when the total exceeds that amount. The purchaser will be required to submit quarterly returns of the timber cut and the dues will be payable at these quarterly periods. All timber cutting on the reserves shall be done under the control of a forest ranger, subject to regulations prohibiting unnecessary waste of timber and providing for proper brush disposal and for reproduction of the timber.

ANNUAL PERMITS to cut limited quantities of timber may be granted to settlers and others upon application to the Forest Ranger or the Supervisor of the Forest Reserve.

Mining

Coal—Coal mining rights may be leased for twenty-one years, renewable, at an annual rental of $1 an acre. Not more than 2,560 acres can be leased to one applicant. Royalty, five cents per ton.

Quartz—A person eighteen years of age and over, having made a discovery may locate a claim 1,500 feet by 1,500. Fee $5. At least $100 must be expended on the claim each year, or paid to the Mining Recorder. When $500 has been expended or paid and other requirements complied with, the claim may be purchased at $1 an acre.

Placer Mining Claims are 500 feet long and from 1,000 to 2,000 feet wide. Entry fee, $5. Not less than $100 must be expended in development work each year.

Dredging—Two leases of five miles each of a river may be issued to one applicant for a term of 20 years. Rental, $10 a mile per annum. Royalty, 2½ per cent. after the output exceeds $10,000.

Homesteads

Any person who is sole head of a family or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the District. Entry by proxy may be made at any agency on certain conditions by father, mother, son, daughter, brother, or sister of intending homesteader.

Duties—Six months residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres, solely owned or occupied by him, or by his father, mother, son, daughter, brother, or sister.

In certain districts a homesteader in good standing may pre-empt a quarter section alongside his homestead. Price $3 per acre. Duties—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

The homesteader who has exhausted his homestead right and cannot claim a pre-emption, may take a purchased homestead in certain districts. Price $3 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth $300.

W. W. Cory,

Deputy of the Minister of the Interior.

Department of the Interior,
Ottawa, 1st June, 1914.

Rubber Belting

for Power Transmission and Conveying

Good Rubber Belting is not injuriously affected by heat, cold or moisture; is perfectly uniform in width and thickness; is very strong; is smooth and adheres closely to the pulleys, thus insuring maximum power transmission.

Duck especially woven to insure greatest strength and least possible stretch; good rubber to hold the several plies securely together, and a high grade rubber cover all combined in the best possible manner, make our rubber belting pre-eminent for excellence and satisfaction-giving qualities.

"Imperial" Stitched Rubber Belting has long been well-known for its superior merit. The rows of stitches add materially to to the strength of the belt, and it is often possible to use an **"Imperial"** stitched belt with one ply less than would be required in a regular rubber belt.

"Universal" Fine Duck, Friction Service Belting is especially adapted for use on woodworking machinery, where the pulleys are small and the belt speed high. It has proved its merit by good work in many places.

We also manufacture a great variety of rubber **Packings**—including sheet, piston and pump packings—**Hose** of all kinds and for all purposes—**Valves, Gaskets, Springs, Tubing, Mats and Matting.**

The quality of **BOSTON BELTING CO.** prodncts is well known, and mechanica. rubber goods bearing our Trade Mark are in daily use throughout the entire country. If you specify **"Made by Boston Belting Co."** when ordering mechanical rubber goods, you will assure to yourself material that is

"Superior in Quality—Satisfactory in Service."

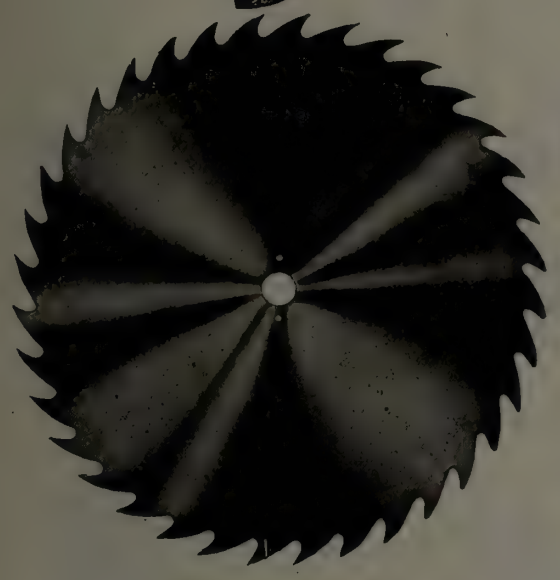
We solicit your enquiries and orders—

BOSTON BELTING CO.

Home Office and Factories: BOSTON

New York — Buffalo — Chicago — San Francisco — Portland, Ore.

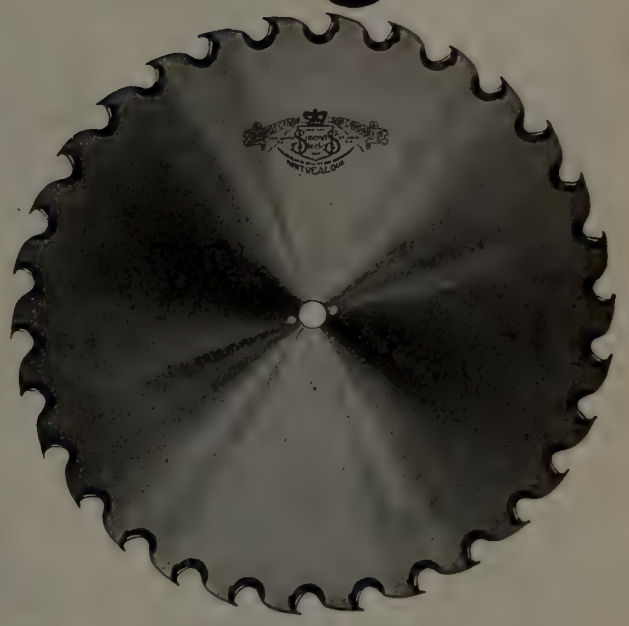
SIMONDS SAWS



"Splendid results from your Circular Saws"

is what our customers say. That's the kind of results you need to make a big profit sawing lumber in Canada to-day. Simonds Saws made in Montreal, are made of Simonds Steel.
Every Saw guaranteed.

Write for Quotation



SIMONDS CANADA SAW CO., LIMITED

Vancouver, B. C. **MONTREAL** **St. John, N. B.**

You Limit Yourself

and the scope of your business just so long as you fail to avail yourself of

Webb Doors

mixed car service. It costs you money to be over-stocked on one item and it cost you business to be entirely out of another item. Make your profits show bigger at the end of this year by keeping your stock down, but complete. Make up a mixed car today and round out your stock. We can supply everything that a retail lumber yard requires. Then, too, let us put in a few of the new popular three-ply fir panels, just to see how attractive and profitable they are to handle.

Webb Lumber Co., Limited

224 Van Horne St. - - **TORONTO**

S. & H. Borbridge

Ottawa, Ont. **Brandon, Man.**

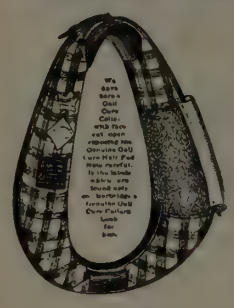
—Manufacturers of—

Harness, Horse Collars, Horse Blankets and Moccasins

for the Lumber Trade

Maple Leaf Kanthurt Horse Collars

(PATENTED)



These collars will not hurt your horses' shoulders.

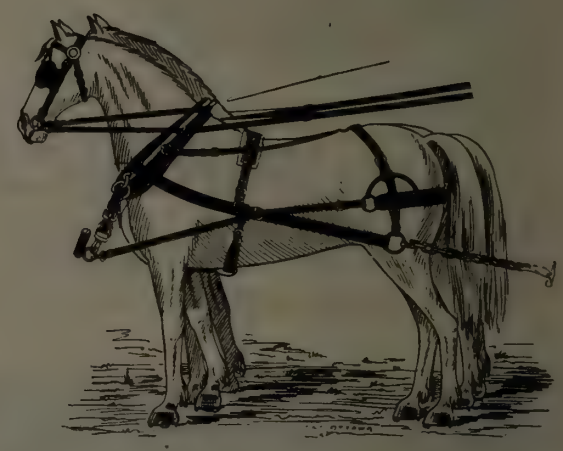
No. 62 Lumber, Hogskin face, $37.00 doz.

Saddlery and Moccasins

No. 10 Jute Blanket

6 ft. 6 in. long, 80 in. wide, 60 in. lined, made square with gusset and shaped at rump. Weight 13 lbs. 6 oz.

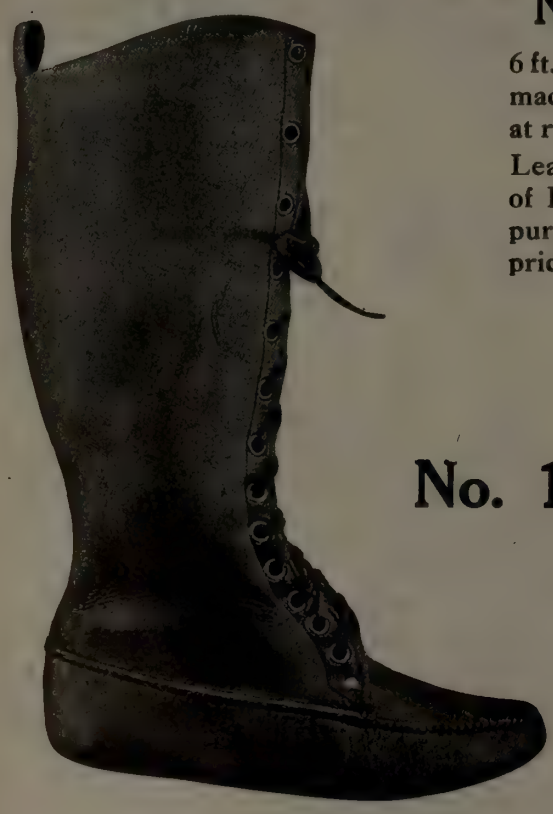
Leather Leg Strap extra. A full line of Horse Blankets for lumbermen's purposes. Write for catalogue and price list.



Michigan Lumber Harness

made in 2 in., 2¼ in., 2½ in., 2¾ in. trace. A full line of Lumbermen's Harness for all sections.

Write for catalogue.



You are Never in Doubt when you Buy of Borbridge.

Patented 1911

No. 152 Long Leg Seamless Heel Draw String Moccasins

The latest improvement in Moccasins doing away with all seams at heel. Under the old method the heel would come down and in a short time the wearer would be walking on it, wearing out the stitching, thus causing it to leak and rip. With the new process the heel will not flatten out, will always keep its shape and there are no seams whatever, making a clean smooth Ripless and Waterproof heel. Made only in the highest quality, all heights of leg, with or without soles or heels.

WRITE FOR CATALOGUE AND PRICE LIST.

You are never in doubt when you buy from Borbridge. We have been dealing with the lumbermen of Canada for upwards of a quarter century.

MILKSTOCK

The Lumberman's Milk

is pure separated milk in powder form.

This is the best form of milk for camp use, because:—

1. It is most convenient. Easy to use.
2. It is best flavored. More like fresh milk.
3. It is purest. Nothing but milk in it.
4. It is not hurt by freezing.
5. It is not hurt by hot weather.
6. It will keep indefinitely even after the tin is opened.
7. It is most portable. Weighs only one quarter of condensed milk.
8. It can be used for everything requiring milk. Flapjacks or Rolls, Cakes and Custard Pies, Tea, Coffee and Cocoa, Soups or Sauces.
9. It is cheaper than condensed milk, even aside from the great saving in freight and transportation.
10. It is **MILK**—Contains no useless water. Has no preservatives in it.

Many camps are using no other milk. Those who have tried everything repeat on **MILKSTOCK**.

For camp use put up in cases of Six Ten Pound Cans, and in Fifty Pound Drums.

Free Samples, Prices and Full Information from

Canadian Milk Products Limited

Mail Building, Toronto

Western Distribution by

W. H. ESCOTT CO., LIMITED, Winnipeg, Regina, Calgary, Edmonton.
KIRKLAND & ROSE, Vancouver.

A Hubbard Oven In Your Camp

A number 3 Hubbard Oven, 31 square feet of tile baking surface, occupies floor space of 5 ft. x 5 ft. 6 in. Height, over all, from 5 ft. 7 in. to 6 ft. 4 in. Shipping weight *only* 2,100 pounds. Also made in 4 other sizes.

The "Hubbard" portable baking oven equipped with "Perfect Rocker Grates" is a sanitary, economical and efficient baking device for lumber camp use. It is substantially built, compact in design and consumes a surprisingly small amount of fuel.

Accompanying is a list of representative lumber camps sing the Hubbard oven with perfect satisfaction.

Every oven is carefully assembled in every detail before being shipped. This assures the purchaser that there will not be the slightest trouble in erecting the oven at its destination. No special tools are required and every oven is shipped complete.

Write for prices f.o.b. your station.

Some "Hubbard" Camps

Abitibi Pulp and Paper Co.,
Iroquois Falls, Ont.

J. Lumsden,
Lumsdens Mills, Que.

Graves, Bigwood & Co.,
Byng Inlet, Ont.

Nippising Mining Co., Ltd.,
Cobalt, Ont.

Quebec Constructing Co.
St. Alselme, Que.

Morrow & Beatty, Limited,
Iroquois Falls, Ont.

The Warren Mfg. Co., Limited

782-784 King Street West Toronto

THE HARRIS ABATTOIR COMPANY, LIMITED

TORONTO, ONT.

MR. LUMBERMAN:

Our Refrigerator Cars distribute our products weekly, to practically every section of Ontario, Quebec, and the Maritime Provinces.

We cater especially to the Lumber Trade.

The following list of products will interest you. Please write for quotations.

We can satisfy you.

Long Clear,	Lard Compound,
Barreled Pork,	Pure Lard,
Barreled Beef,	Cured Meats,
Butter,	Eggs,
Cheese,	Sausages,
Mincemeat,	Vegetables,
FRESH MEATS,	LIVE STOCK,

Agencies at:—

Sudbury, Ont.	Montreal, Que.	Halifax, N. S.
Soo, Ont.	Quebec, Que.	Stellarton, N. S.
Haileybury, Ont.	Campbellton, N. B.	Sydney, N. S.
London, Ont.	St. John, N. B.	Glace Bay, N. S.

THE HARRIS ABATTOIR COMPANY, LIMITED

Your Lumber Horse Needs

A talk with the Lumberman of Canada on the modern and sanitary system we have installed to serve your requirements

FINANCIAL RESPONSIBILITY

WE are in a position this season to supply the lumber trade with the finest heavy horses suitable for camp work. We have shippers in the very best heavy horse district in Western Ontario, who make personal selections and take only the best. Every horse we ship out is guaranteed to be just as represented by us as to age, soundness, weight and quality—there is more than two million dollars behind this guarantee. These horses can be delivered off the incoming cars and transhipped in an hour from our yards.

SERVICE

Our barn accommodation is up-to-date in every particular and has stabling accommodation for 500 horses. A track is also maintained for exercising horses while on the company's premises.

SANITATION

Believing that prevention is better than cure, and to give the very best service possible we have this year employed a veterinary surgeon under salary. A daily and most thorough inspection is made by him of the entire barns and in this way the slightest indisposition is noted and the animal suffering immediately removed to the hospital on the grounds. "Safety first" is our motto in this respect.

TRANSPORTATION

Our premises being directly on the lines of the C.P.R., G.T.R. and C.N.R., our rail facilities are such that we are in a position to ship on an hour's notice, and loading and unloading chutes are located right at the barn doors.

We gladly invite inspection of our entire system. Come and let us show you the most modern and sanitary system in Canada.

Union Stock Yards of Toronto, Ltd.

Horse Department

Wm. Read, Sales Manager

FULL VALUE FOR YOUR MONEY

CARSS MACKINAWS

for Miners and Lumbermen

Carss Pure Wool Mackinaws are the only genuine waterproof mackinaws made in Canada.

Since their introduction among miners and lumbermen, some thirty years ago, their reputation for strength and warmth has spread from coast to coast.

They are manufactured especially for the vast army of men employed in the mining and lumbering camps throughout Canada, and are well suited to stand the hard wear they have to undergo.

The census of popular opinion is in favor of Carss Mackinaws. Let us send you sample garments for inspection, so that you may join the satisfied majority,

The Carss Mackinaw Clothing Co., Limited

ORILLIA - - ONT.

(REGISTERED) TRADE CARSS MARK MACKINAW.

(REGISTERED) TRADE CARSS MARK MACKINAW.

Perkins Vegetable Glue

used for

High Class Veneered Office and Household Furniture, Doors, Trunks, Etc.

The Glue that is

Applied Cold and Runs Absolutely Uniform

Manufactured and sold exclusively by

Perkins Glue Company

Originators and Patentees

812 J. M. S. Building, South Bend, Indiana

FEED NATIONAL OATS—*There is a Reason*

National Oats

are good clean heavy western oats—carefully bagged and well sewn to meet the requirements of the

Lumber Camps

If you have never tried them do it now—ask us for quotations, stating your requirements.

National Elevator Co., Ltd.

Winnipeg, Man.

THE OAT SPECIALISTS

REG. TRADE MARK

Special For Camp Horses

"THERAPY"

A Complete "Veterinary Drugs Pharmacy"

A Remedy for Every Disease

With full instructions as to how to use each remedy; 33 different kinds of the purest DRUGS and CHEMICALS used to prepare "THERAPY."
Contained in a well packed and very portable box. Price prepaid by mail, $4.00 sent direct on receipt of price.

For camp horse owner, who is far away from any Veterinarian help, we answer free of charge any consultation by letter, for any disease, by our diploma'd Veterinary Doctor. Write now.

"CEREALINE" per 15 lb. pail. Best all round tonic, and specially compounded for Camp horses. Its use will make your horses look finer, more vigorous, and work better; it is indeed very nutritious, and digestible. Price, $1.25 per pail.

Our "ANTI-COLIC" is the quickest and most effective "COLIC-CURE" on the market. Heavy losses through colic occur every year, in your camp. Avoid this by having always on hand our "ANTI-COLIC" specific. Price by mail, 75c a bottle on receipt of remittance.

NOTE.—We carry a complete line of drugs; if you require some of any kind, just write and we will be pleased to quote at very low prices.

Write for circulars. ***Agents Wanted.***

The National Stock Food Co., Limited

Ottawa, Ont.

WHITE MOTOR TRUCKS
Predominate In America

BOTH IN THE QUANTITY OF TRUCKS SOLD AND IN THE VALUE OF TRUCK SALES, WE ARE THE LARGEST MANUFACTURERS OF COMMERCIAL MOTOR VEHICLES IN AMERICA

Official Records of the Motor Truck Industry Verify This Statement

This Leadership of the Truck Industry is of the utmost importance, both to the many who already own White Trucks, and to the many others who will eventually purchase White Trucks.

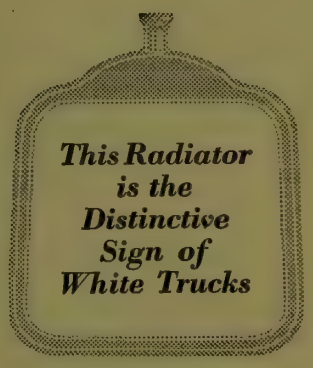
TO THE OWNERS OF WHITE TRUCKS

THIS LEADERSHIP proves the correctness of your judgment in selecting your motor truck equipment.

It shows that you have chosen the same motor truck that the majority of truck users in America have selected.

In practically every case, this selection has been the result of a process of rigid experimentation and elimination, in which White Trucks have proved their superiority over all others.

This preference for White Trucks by the largest users of motor trucks as well as by the majority of motor truck users guarantees that your investment is protected by a successful, well established manufacturer, having a superior organization for rendering permanent and efficient service during the life-time of the trucks.



TO FUTURE OWNERS OF WHITE TRUCKS

THIS LEADERSHIP is conclusive proof that White Trucks must be superior to all others, because White Supremacy is not measured in numbers alone, but in value as well.

With so many makes of motor trucks on the market, all clamoring for recognition, indisputable supremacy can be gained only by superior merit.

Untruthful advertising, bargain prices, exaggerated claims and guarantees that cannot be fulfilled may make the first sale, but only superior merit can create the confidence which brings continuous repeat orders.

The record of continuous repeat orders whereby the foremost firms in America have acquired huge fleets of White Trucks, after experimenting with other makes, is a convincing reason why you should use White Trucks.

WHITE TRUCKS ARE MOST ECONOMICAL TO OWN

That White Trucks are slightly higher in price, makes White leadership in the truck industry even more complete. It is plain evidence that White construction is so superior that the higher first cost of a White Truck is economy in the long run—proof that White Trucks last longer and cost less to operate and maintain, making them the most economical trucks to own.

White Trucks are built in capacities of ¾, 1½, 3 and 5 tons

A SUITABLE SIZE FOR EVERY VARIETY OF SERVICE

THE WHITE COMPANY

CLEVELAND, OHIO, U. S. A.

MANUFACTURERS OF GASOLINE MOTOR CARS, MOTOR TRUCKS AND TAXICABS

AFTER MAKING CAREFUL TESTS THEY CHOSE PACKARD TRUCKS

In buying a motor truck to haul lumber, the considerations are the service you want, the economy you have a right to expect, and the stability necessary to protect your investment. The letter of the Boake Manufacturing Company tells of careful and systematic tests for the best truck. It explains why they chose the Packard:

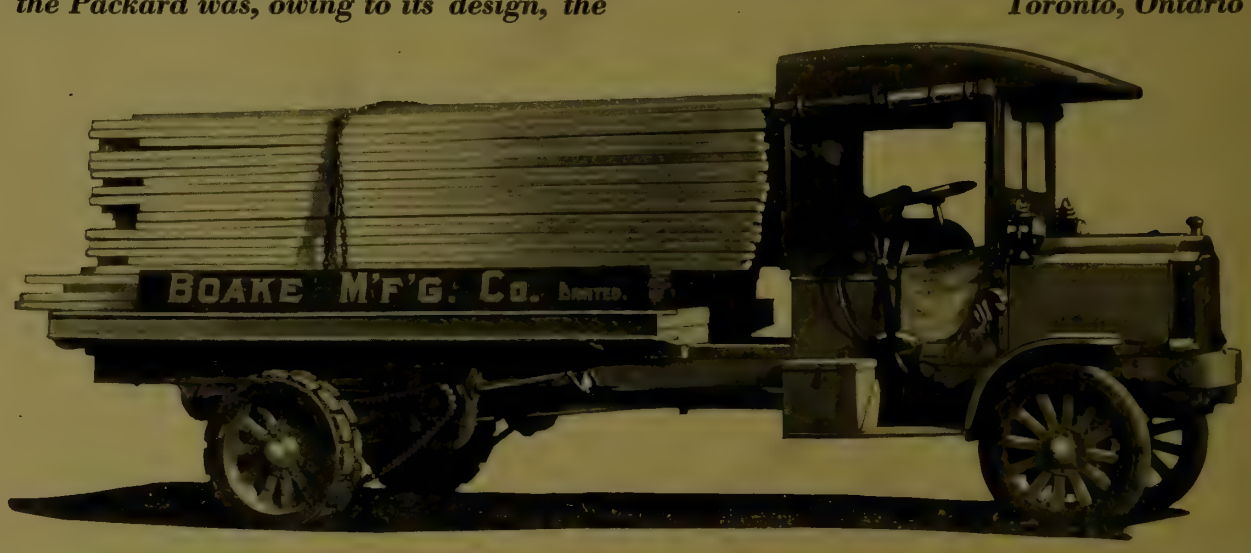
"We have been using motor trucks for the past four seasons, and we purchased our first Packard truck in March, 1912. We selected the Packard after making tests as to the practicability of four different makes of trucks in the delivery of lumber. We had also had two previous years' experience in the use of a truck of a different make in our business. We have also had different makes of trucks hired for weeks at a time. This was done partly to help out in the delivery of our orders and partly to gain some experience in the use of motor trucks before actually placing an order for more.

"We at last came to the conclusion that although the four makes of trucks which we were considering were all good trucks, the Packard was, owing to its design, the best adapted for the purpose of our business, and so purchased one in March, 1912, and another in April, 1913, and have since placed an order for a third.

"The platform of the body is equipped with four iron rollers so that the load can be rolled on and bound in less than five minutes, and when we arrive at the building can be unloaded in less time. All that is required in unloading is to unbind the load, roll it back till it balances on the hind roller, and then drive out from under it.

"By using the motor trucks for delivery we find that we can handle orders that have to be delivered several miles away, which it would not be possible for us to handle with our horse and wagon delivery."

BOAKE MFG. COMPANY, LTD.,
Toronto, Ontario



Packard Motor Trucks are built in five sizes, having a maximum load capacity of two tons, three tons, four tons, five tons, and six tons respectively. The chassis can be had in several lengths of frame. Bodies to meet the requirements of the lumber business can be had to fit the standard Packard chassis.

ASK THE MAN WHO OWNS ONE

CATALOG ON REQUEST

ONTARIO MOTOR CAR CO., LTD.
18 Bloor St. East, Toronto
41 Queen Street, Ottawa

COMET MOTOR COMPANY, LTD.
295-307 University Street
Montreal

The Boiler Inspection and Insurance Co. of Canada

1875 CONSULTING ENGINEERS—EFFICIENCY EXPERTS 1914

Explosion of a Boiler in Saw-Mill near Midland, Ontario

The Inspection of Steam Boilers, Digesters, Economizers, etc., a Specialty. Expert Engineering Advice on all matters relating to the Operation and Efficiency of the Steam Plant.

Insurance against all Loss or Damage to Property and Loss of Life and Personal injuries Resulting from Steam Boiler Explosion.

Inspection and Indication of Steam Engines by Experts.

Insurance against Loss or Damage to Property caused by Breakdown of Engine or Bursting of Fly-Wheel.

Service Protection Supplemented by Insurance

Chief Office in Manitoba
404 Builders' Exchange
WINNIPEG
A. L. G. TAYLOR
Resident Inspector

HEAD OFFICE:
Continental Life Building
TORONTO
H. N. ROBERTS
General Manager and Secretary

Chief Office in Quebec
227-228 Board of Trade
MONTREAL
OLAF E. GRANBERG
Manager and Chief Inspector

Lumber Camp Ranges and Heaters

Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 10-25 Range for wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 10-25 Range will give satisfaction.

All Kinds of Stoves for Large or Small Camps

NO. 10-25 SIX HOLE RANGE AND RESERVOIR

The Lumberman Heater

The Lumberman Heater is built with a heavy boiler plate body, the ends are made of heavy cast metal with a large fire door.

This Heater is used in Lumbermen's Camps, Boarding Houses, Schools and on Railway Construction. It is a perfect Heater and very durable.

Write for our Catalogue and Price List

Adam Hall, Limited, Peterborough, Ontario

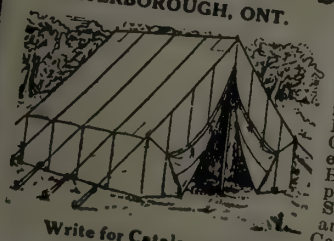
Original and Pioneer Manufacturers of Camp Ranges. For over 36 years the leading Canadian makers of ranges and heaters for camps, hotels and railway construction.

Leading Firms

CATERING FOR

Mill, Factory and Camp Business

J. J. TURNER & SONS
PETERBOROUGH, ONT.



The largest Manufacturers and Dealers in Canada of Lumbermen's Tents Bed Ticks, Grey Blankets, Nose Bags, Water proof Goods, Steel Ranges and General Camp Outfits.

Write for Catalogue. Prompt shipments.

A good Steel Range for Camp Use

Can be fitted to burn wood, coal or coke. Special price to lumbermen.

ALGONQUIN STEEL RANGE.

Write us. **NATIONAL MFG. CO., LTD, Ottawa.**

Caldwell's Molasses Meal

Guaranteed to contain 34 per cent. Pure Cane Molasses

Increase the efficiency of your horses, keep them free from Colic and indigestion

Leading lumber camps now using it

WRITE FOR ILLUSTRATED BOOKLET

Caldwell Feed Co., Ltd.
Dundas, Ont.

Canuck Rolled Oats
Package or Bulk

OATS, HAY and FEED

The Chisholm Milling Co., Limited
Jarvis Street, - - TORONTO

SAW MILL BELTING

Note our NET PRICES per foot on NEW RUBBER BELTING

4 ply.	5 ply.
8" at 31c	8" at 36c
10" " 40c	10" " 47c
12" " 50c	12" " 60c
14" " 55c	14" " 70c

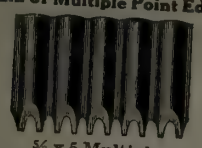
Send for our Net Price List on Belting of every description,

N. SMITH, 138 York St. **TORONTO, Ont.**

Saddle Tank Locomotives
Geared Locomotives
Steel Rails Flat Cars
ALL SECONDHAND
Correspondence solicited.
SESSENWEIN BROS.
Montreal

Corrugated Joint Fasteners
Plain or Multiple Point Edges

Packed in bulk or packages.

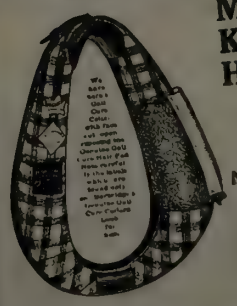


Write for samples and prices.

⅝ x 5 Multiple

Any depth and any number of corrugations

The Steel Co. of Canada, Limited
Hamilton, Montreal, Winnipeg, St. John.



Maple Leaf Kanthurt Horse Collars
(PATENTED)

These collars will not hurt your horses' shoulders.

No. 62 Lumber, Hogskin face, $37.00 doz.

Saddlery & Moccasins

S. & H. Borbridge
Ottawa, Ont.

Any one of these spaces twice a month for a year (24 insertions) will cost $72, and may be changed every issue.

"OMAZON"
Nourishing and Medicinal Powder

Cures and invigorates the horse by its general action on the Stomach and Bowels.

Sold in packages and in pails.

Dr. Ed. Morin & Co., Ltd.
QUEBEC

W. H. Dwyer & Co., Ltd.
OTTAWA, ONT.
Offices also at Fort William and Montreal

Largest Wholesale Dealers in Hay and Oats in Canada

Write or wire us at any of the above offices. We do the rest.

"HE WHO SERVES BEST PROFITS MOST."

Everything in Harness

"The Alligator Brand"

Special strong harness for lumber horses.

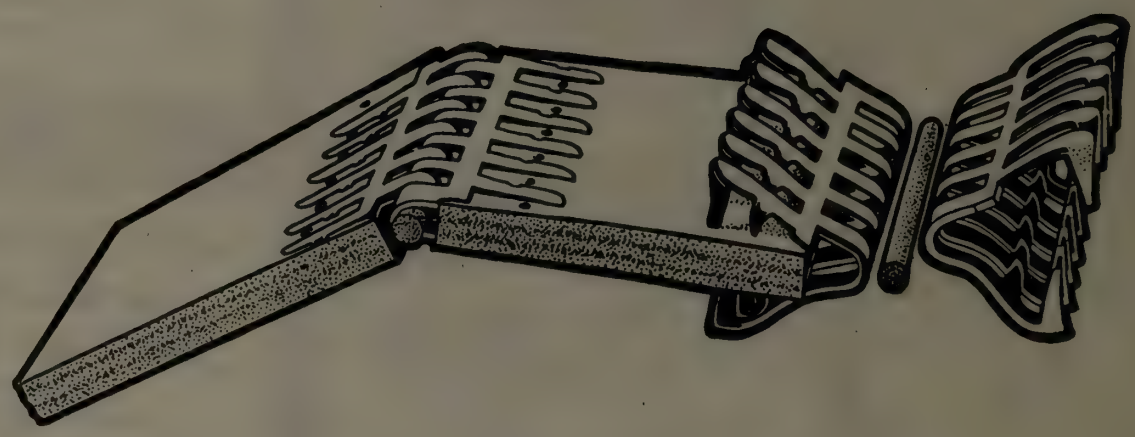
Lamontagne Limited.
Building, MONTREAL

"ALLIGATOR"

FLEXIBLE STEEL

BELT LACING

For All Makes and Sizes of Machinery Belting



STRONGEST BELT FASTENER MADE

Nothing Needed But a Hammer

4-inch Belts laced in 4 minutes. A detachable lacing hinging on a rawhide pin.

Write for free samples stating width and thickness of belt on which you wish to test this lacing.

Crescent Oil Co., Limited

HAMILTON, ONT.

Following are the Agents for this Fastener:

Sadler & Haworth, 511 William Street, Montreal, Quebec.

F. H. Andrews & Son, 64-66 St. Paul Street, Quebec, Quebec.

Austen Brothers, 118 Hollis Street, Halifax, Canada.

E. N. Jones, 21 Brussels Street, St. Johns, N. B.

P. A. Gouin, Cor. Du Platon & Craig, Three Rivers, Que.

The Crescent Oil Company, 136 Cannon Street West, Hamilton, Ontario.

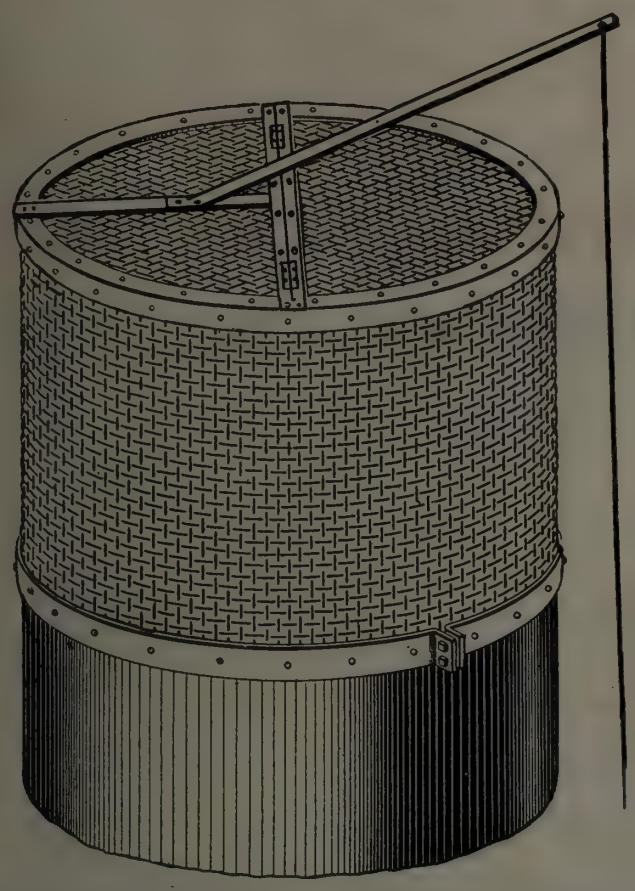
The Crescent Oil Conpany, 74 Don Esplanade, Toronto, Ontario.

J. S. Mitchell & Company, 73-77 Wellington St., Sherbrooke, Quebec.

Great West Engine Packing Company, 602 Ellice Avenue, Winnipeg, Manitoba.

We also sell "LIMESTONE" Wood Split Pulleys. Lunkanheimer Valves, Paints, Hose, Packings, Lubricating Oils and Greases.

"Safety First"



A Spark Arrester

There is no greater inspiration for the "Safety First" league than the fire hazard.

Our spark arresters and refuse burners are noted fire preventors and should be used in every wood-working factory, saw and planing mill.

Illustrated is our adjustable arrester.

Prices gladly furnished upon application.

Canada Wire & Iron Goods Co.
Limited

Hamilton, Ont.

BUTTERWORTH
Shanty Ranges and Heaters

THE LONG LIFE SATISFACTION GIVING KIND

Length over all 5′ 7″ x 29″ wide.
Heavy three piece sectional top.
Large roomy detachable reservoir.
Oven dimensions 25″ x 28″ x 16″.

Wood fire box 28″ x 13″ wide.
Two springs control drop oven door.
Extra heavy fire box, linings and grates.
Most durable and best working Shanty range made.

Camp Diamond Heaters made of 14 guage cold rolled fire resisting steel.
Made in 36″, 42″ and 48″ sizes. Adjustable shelves, low down legs, large heavy fire door, good ash tray, shipped in one package.

Prices lowest possible consistent with quality of materials; worthy of your investigation.

Beach Foundry Company, Limited, Ottawa, Ont.

Successors to BUTTERWORTH FOUNDRY, LIMITED

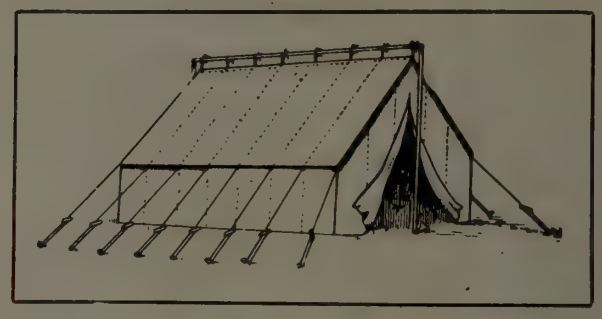
Grant Holden Graham Limited

Wholesale Manufacturers of

Lumberman's Tents, Tarpaulins, Wagon Covers and Horses Clothing

Factory and Warehouse, 147 to 151 Albert St., Ottawa, Can.

Featherweight Silk



Easy to Pack

When cruising for the lofty pine
This tent your friend in rain or shine

OUR MOTTO QUALITY FIRST

Repellant Duck

Satisfaction Durability

We know you aim to treat men right
So use our tents for rest at night

Guaranteed Watertight

Thistle Brand

Your horses too we don't forget
This new style tent will get you yet

G H G TARPAULINS

Lumberman's Clothing, Van Goods and Camp Equipment

Leaders in Mackinaw Clothing

G H G Repellant Brand

Gloves
Leather Mitts
Table Oilcloth
Braces
Caps
Pipes
Rubbers
Towelling
Snow Shoes
Jute and Cotton Bags

Our Master Suit

Coats
Pants
Overalls
Top Shirts
Sweaters
Underwear
Socks
Woolmitts
Mackinaw Blazers
Oil Clothing

We specialize in Lumberman's Blankets

Horsehide and Buckskin Moccasins

Palmer's Genuine Drawstring Shoe Packs

Eiderdown Sleeping Robes, Mattresses and Pillows

Grant Holden Graham Limited

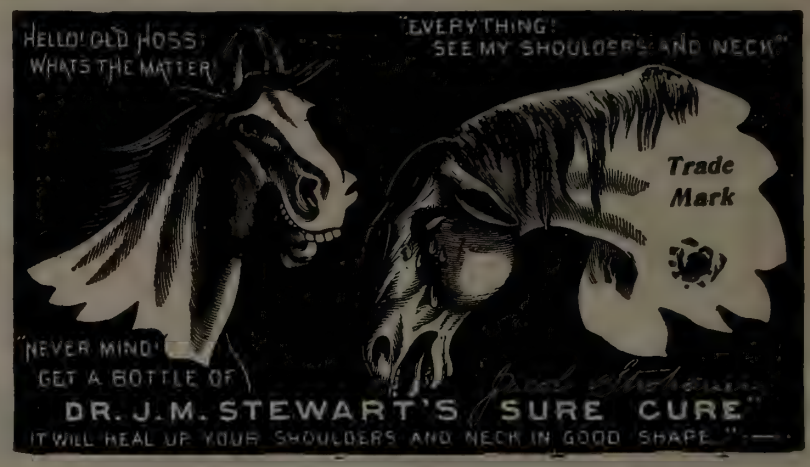
Wholesale Manufacturers and Importers

Factory and Warehouse, 147 to 151 Albert St., Ottawa, Can.

INSURE YOUR HORSES against SICKNESS

Why not? You protect your mills against fire by installing fire-fighting apparatus; you protect your employees against accident by the use of machinery guards—then why not protect the health and efficiency of your horses? And how? By keeping in your stables a good supply of Dr. Stewart's Veterinary Remedies.

It may be the means of saving the life of many good horses and will keep them sound and vigorous at all times.


HELLO! OLD HOSS! WHAT'S THE MATTER
"EVERYTHING! SEE MY SHOULDERS AND NECK"
Trade Mark
"NEVER MIND! GET A BOTTLE OF
DR. J. M. STEWART'S SURE CURE"
IT WILL HEAL UP YOUR SHOULDERS AND NECK IN GOOD SHAPE

A LIST OF DR. STEWART'S VETERINARY REMEDIES

Stewart's Sure Cure (antiseptic gall cure) the original in liquid form	16 oz. bottles	$9.00	doz.
Stewart's Excelsior Liniment	32 oz. "	9.00	"
Stewart's Lightning Colic Cure, the only colic cure that removes the cause	16 oz. "	7.00	"
Stewart's Pure Condition Powders	2 lb. air tight tin can	4.50	"
Stewart's Condition Powders	5 lb tin can	9.00	"
Stewart's Hoof Ointment	1 lb. can	5.00	"
Stewart's Heave Relief	large can	5.00	"
Stewart's Cough and Distemper Cure	50 doses to bottle	7.00	"
Stewart's Proud Flesh powders		2.50	"

THE STANDARD for more than 30 Years

These remedies are by no means an experiment. They have been prepared for the past thirty years from the prescriptions of a famous veterinary of many years' experience, during which time they have proven their worth to thousands of regular customers.

They are reliable and trustworthy in every way and every remedy is sold under a positive guarantee to produce results or money refunded.

The Palmer Medical Co., Ltd. Windsor, Ont.

The above cut shows the MATHEWS PATENT LUMBER CARRIERS in operation in the lumber yards of R. Laidlaw & Co., Toronto, the Steel Ball Bearing Rollers convey Boards, Timbers, siding in bundles, etc., by Gravity, no power required. Write for prices and catalogue.

Save 50% of the time, labor and expense of handling your lumber by using a

Mathews Labor-Saving Gravity Lumber Conveyor

We make conveyers for all manufacturers using lumber in quantities. Conveyers for handling Shingles, Lath, Dimension Timbers, Flooring, Cooperage Stock, Boxes, Box Shooks, Cedar Ties, etc.

Send for Catalog illustrating the Mathews Labor-saving Gravity Conveyer for handling LUMBER, LATH, SHINGLES, DIMENSION STUFF, FLOORING, COOPERAGE, etc. Now in use by manufacturers, wholesalers and retailers.

484 Richmond St. West, **Canadian Mathews Gravity Carrier Co., Limited** TORONTO, Ontario

"Moose Head Brand"

Oil Tan and Draw String Packs

We have the sole agency in Ontario for the celebrated "Moose Head Brand" Oil Tan and Draw String Packs.

These packs are giving maximum satisfaction to Lumbermen throughout the whole Ottawa Valley.

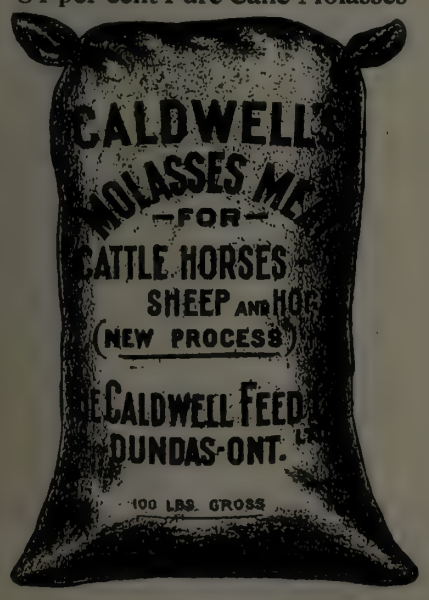
We also carry a complete line of Mitts, Socks, heavy Gum Rubbers and Mining and Prospecting Boots.

GIVE US A TRIAL ORDER

The A. W. Ault Co., Limited, Ottawa, Ont.

Caldwell's Molasses Meal

Guaranteed to Contain
84 per cent Pure Cane Molasses



Increases the Efficiency of Your Horses Keeps Them Free from Colic, Worms and Indigestion and Saves Veterinary Bills

Caldwell's Molasses Meal

is manufactured in the largest and most modernly equipped feed mill in Canada under expert supervision and is guaranteed to contain at least 80 per cent. Pure Cane Molasses, which is absolutely essential to the health of every horse and particularly those working in the lumber camps, where long hours and heavy work require heavy feeding to keep them at their best.

Caldwell's Molasses Meal is the Cheapest Food on the market today, not only from a standpoint of benefit to the stock but because it displaces other materials and is not an additional expense.

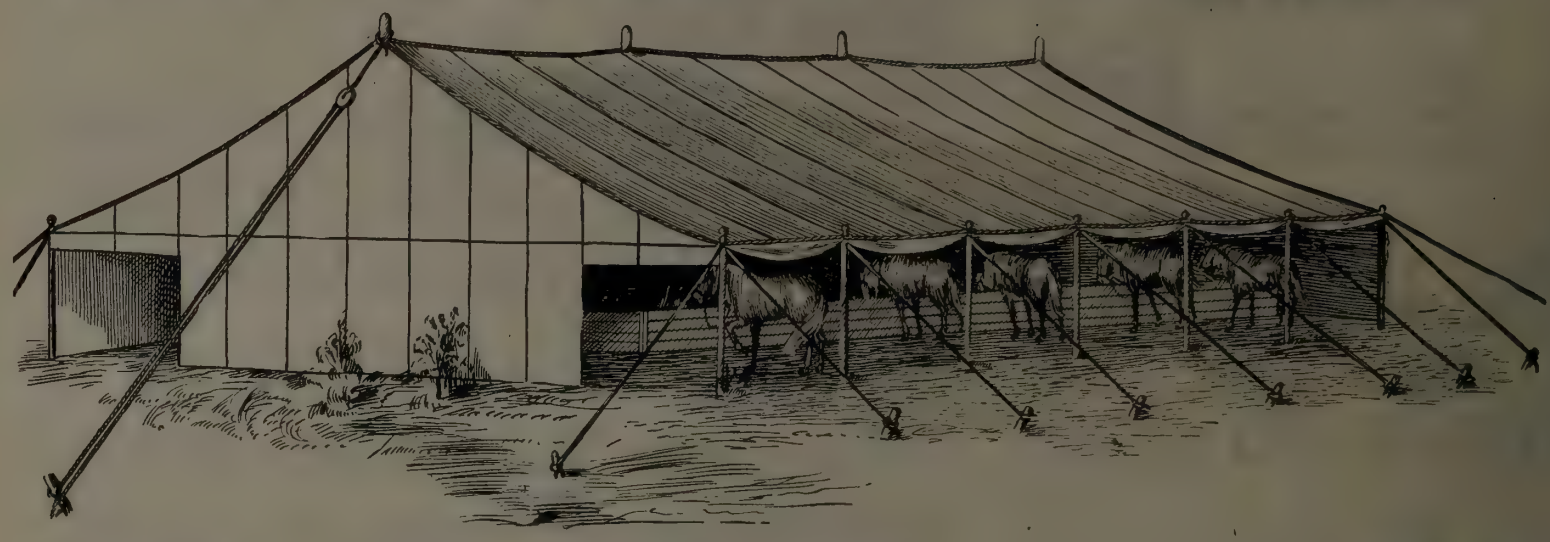
Now used in the leading lumber camps of Canada and giving universal satisfaction.

You will save money by using Caldwell's Molasses Feed in your camps this coming season. It is put up in 100 lb. sacks with directions for using on every bag. We can ship it to your nearest station at a low rate of freight. Give it a trial. Write to-day for Booklet.

The Caldwell Feed Co., Limited - Dundas, Ont.

The largest feed mill in the Dominion.

STABLE TENTS
For Lumber Camps



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"The kind that last"

Thousands of years ago, the Lumbermen didn't "go strong" on the wearing of clothes; but they do NOW. What they want nowadays are clothes of SERVICE.

SMART-WOODS are ready to fill the want.

SMART-WOODS Heavy Wool Underwear and Woolen Socks are every bit as warm as they are comfortable.

SMART-WOODS Absolutely Pure Wool Mackinaw Coats and Pants are, without question, the best WARMTH-RETAINING Clothes made today.

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TORONTO

Smart-Woods LIMITED

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ONTARIO
Canada's Banner Province

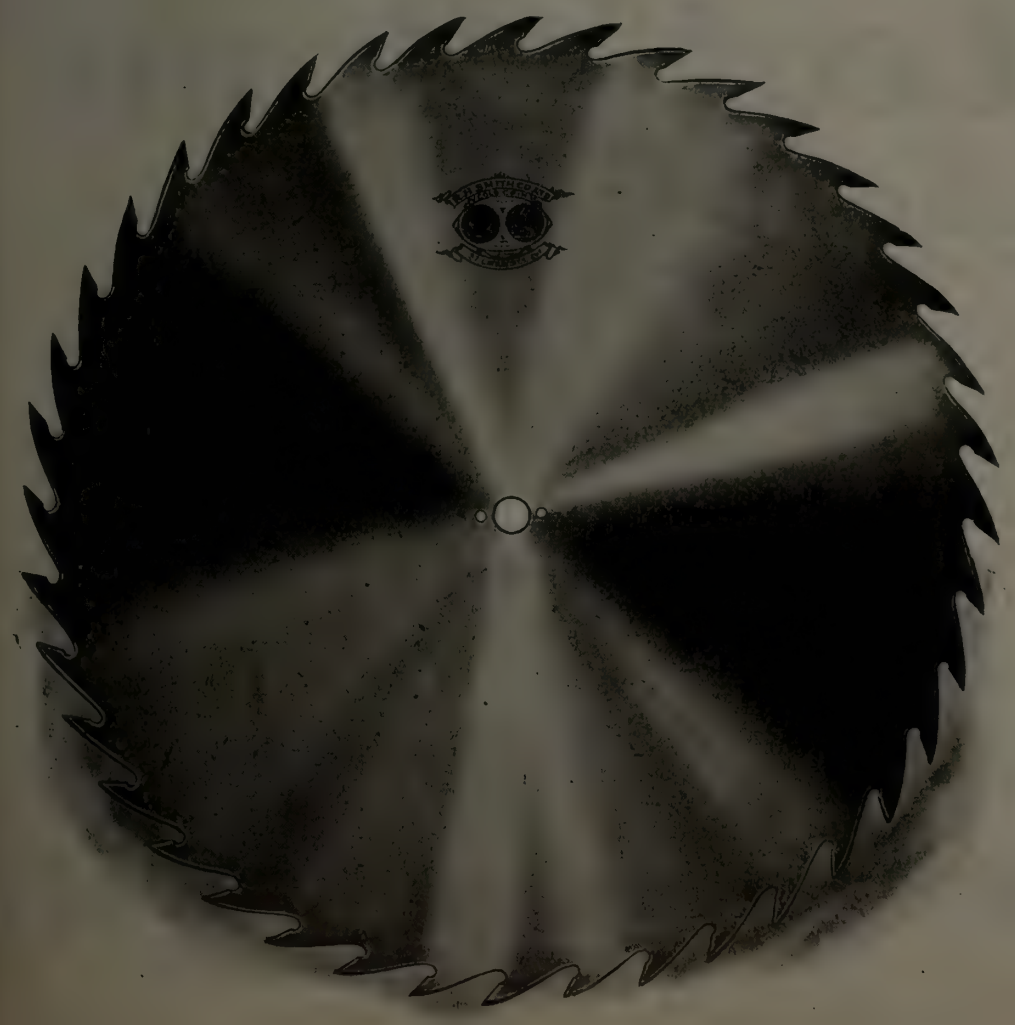
Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

Pine production, 905,442,000 ft. B.M.
Pulpwood, 246,282 cords.
Railway Ties, 5,704,459.

Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

Ontario's vast resources offer unsurpassed opportunities to the lumberman.
For maps and full information regarding Ontario, apply to

HON. W. H. HEARST,
Minister of Lands, Forests and Mines.



Solid and Inserted Tooth
Circular Saws

We make a specialty of these lines

We remake old Solid Tooth Saws into new Inserted Tooth Saws

Write to us for quotations.

Our saws have been before the public of Canada since 1855, and have won a reputation far excelling any other make of saws, combining as they do so many points of marked superiority.

By the old method the tempering of circular saws was to a great extent a matter of chance.

By our Patent Process that uncertainty is entirely avoided.

Being tempered and straightened by heat and pressure in air-tight ovens at a uniform heat between heavy revolving plates, we produce a perfectly even temper throughout the plate, and being free from that uneven strain or tension caused by so much unequal hammering they are not so liable to buckle, which was a great source of trouble and expense in the old style of saw.

These saws will stand up to their work better under all circumstances, and being made of a higher quality steel than it is practical to use by the old method, they hold an edge longer and will do more work than any other saw on the market.

We are prepared to make prompt deliveries of all Saw Orders—Rush Orders by mail or wire receive immediate attention.

R. H. Smith Co., Limited
Saw Manufacturers,
ST. CATHARINES, ONT.

RUBBER GOODS FOR LUMBERMEN

Belting Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings "Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

Gutta Percha & Rubber, Limited

Successors to
The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

TORONTO MONTREAL WINNIPEG CALGARY VANCOUVER

"Maple Leaf" Brand
Stitched Cotton Duck Belting

A trial Belt will convince you.
Write for prices and samples.

Excels all others in economy, strength, efficiency, and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply "Maple Leaf" belt, a light double leather, and a 6-ply rubber belt, showed that our "Maple Leaf" Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts Are the Best on the Market.

"MAPLE LEAF" BELT DRESSING is the best for all kinds of belts.

Dominion Belting Company, Limited

HAMILTON - ONTARIO

Branch: Montreal—Office 51 Duluth Building

G&K 1851 TRADE MARK

Educational Talks on Leather Belting.

Proper Installation of Belting

The proper installation of belting is just as fundamental to transmission efficiency as the proper selection of weight, quality and thickness. Maximum service must be obtained from belting by following certain general and long established rules.

First—Be sure pulleys are in line, and shafts parallel.

Probably more belting is ruined by improperly lined shafting and pulleys than by any other cause. Belts operating under such conditions are often kept on the pulleys by guides. They sometimes rub against hangers or portions of machines. As a result a lap starts open, the belt catches and tears. If no such accident happens, the belt usually stretches excessively on one edge. Belts so stretched will not run straight and are apt to run off the pulleys and become torn or otherwise damaged.

Test—If a belt climbs to one side of the pulleys look for trouble in the shafting. Turn the belt around, and if it till climbs to the same side of the pulley you have proved that the shafting is out of line.

Remember that because shafting was once in line it does not follow that it stays so indefinitely.

Second—Avoid putting on belts too tight.

When belts operate too tightly the leather is overstrained and injured. There is excessive friction at the bearings with a consequent loss of power. If belts run too losely, they are likely to flop around and jump from the pulleys, especially where loads are intermittent or suddenly applied.

The slacker a belt can be run and transmit the required power without slipping, the greater the economy of the drive.

Third—Be sure every belt runs in the proper direction.

Single belts should be put on so as to run with the grain or hair side next to the pulleys.

All belts should be put on so that the points of the laps on the outside of the belt point away from the direction in which the pulley is revolving.

Fourth—Exercise care when joining belting.

A cemented lap is not difficult to make, and is the most satisfactory method of joining a belt. It means increased life, smoother running, fewer repairs and therefore greater machine production. When a cemented lap is not practical, a laced joint is the next best method. But this joint must be made properly, extreme care being used to have all strands under equal tension, or a crooked belt will result. Always avoid the use of large lacing holes—they weaken the end of the belt; also avoid unnecessary bunches of lace—they cause slipping.

Fifth—Avoid water, oils, greases, etc.

Ordinary leather belting should not be used where any of these destructive elements are present, unless it is possible to protect the belting by mechanical means. But remember that G. & K. NEPTUNE Belting will withstand moisture and water, and is guaranteed not to open at the laps or between the plies even when wholly submerged. G. & K. SPARTAN Belting is guaranteed to resist the action of water, oil, acid, fumes, and steam.

While we have offered above only a few general suggestions about the proper installation of belting, we wish to emphasize the importance of this point in securing an efficient drive. In the case of special drives, the details must be analyzed and the best belt secured. Our Engineering Department will gladly investigate any drive and recommend the proper belting and installation.

Our "Belting Manual," fresh from the press, contains ninety pages of useful mechanical rules and valuable information about belting, and its proper installation, selection, and care. A copy will be sent you gratis on request.

Subject for next month:—"The Care of Belting."

The Graton & Knight Manufacturing Co.

Oak Leather Tanners and Belt Makers

Unity Building, 47 St. Alexander St., Montreal, P. Q.

Home Office and Factory, Worcester, Mass., U.S.A.

Figure it out Yourself

Goodhue Belts

have the stretch taken out before you get them and "the 15% less stretch" means an overall economy of 15% on your belting costs.

Every time you "take up" a slack belt it usually means cutting out a **useless** piece. In a year these pieces represent considerable belting **all paid for** but of **no use** to you. All this is **additional** to the time lost in tightening belts and **power lost** through slack belts.

Use Goodhue Belts aud reduce your belting charges and "belt labor" by 15%. 'Tis worth considering.

15% LESS Stretch

J. L. Goodhue & Co.
Limited

Danville, P.Q.

**We tan our own Leather—
we know it's good.**

We Understand the Belting Business

Let us give you the benefit of our experience

This service is absolutely free whether you buy belting from us or not.

It is absolutely impossible to get one style of Belt to do all kinds of work. For various purposes we have found it necessary to carry five different kinds of Belting.

Our book THE MAIN DRIVE is free. This book gives valuable information on all kinds of Belting and is worth keeping.

We have made a study of solving belting problems, and can furnish you belts specially adapted for :—

Main Drives **Hot and Cold Drives**
Wet Drives **High Speed Work**
Wet and Dry Drives

Conveyor Belts for Handling:—

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Federal Engineering Company, Limited,

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SPECIAL HIGH SPEED LEATHER BELTING.

LANCO BALATA BELTING

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Please send your Belting book, the Main Drive to

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Address.....

Position ..... Firm name .....

A Typical LEVIATHAN Main Drive, Installed at the Plant of The Riviere du Loup Pulp Co.,
24 in. x 6 ply, 81 Feet in Length.

Leviathan Belting

Has been sold on a "make good" basis for over thirty years. If it hadn't made good we would have been out of business long ago. The fact that our business is progressing rapidly is ample proof of the merit of this belting.

With every belt we guarantee full value in service, dollar for dollar, horsepower for horsepower, and just as we have figured our tables of horsepower for the best results, just so in making the above statement, we not only expect to give equal service, but **better service, and more economically.**

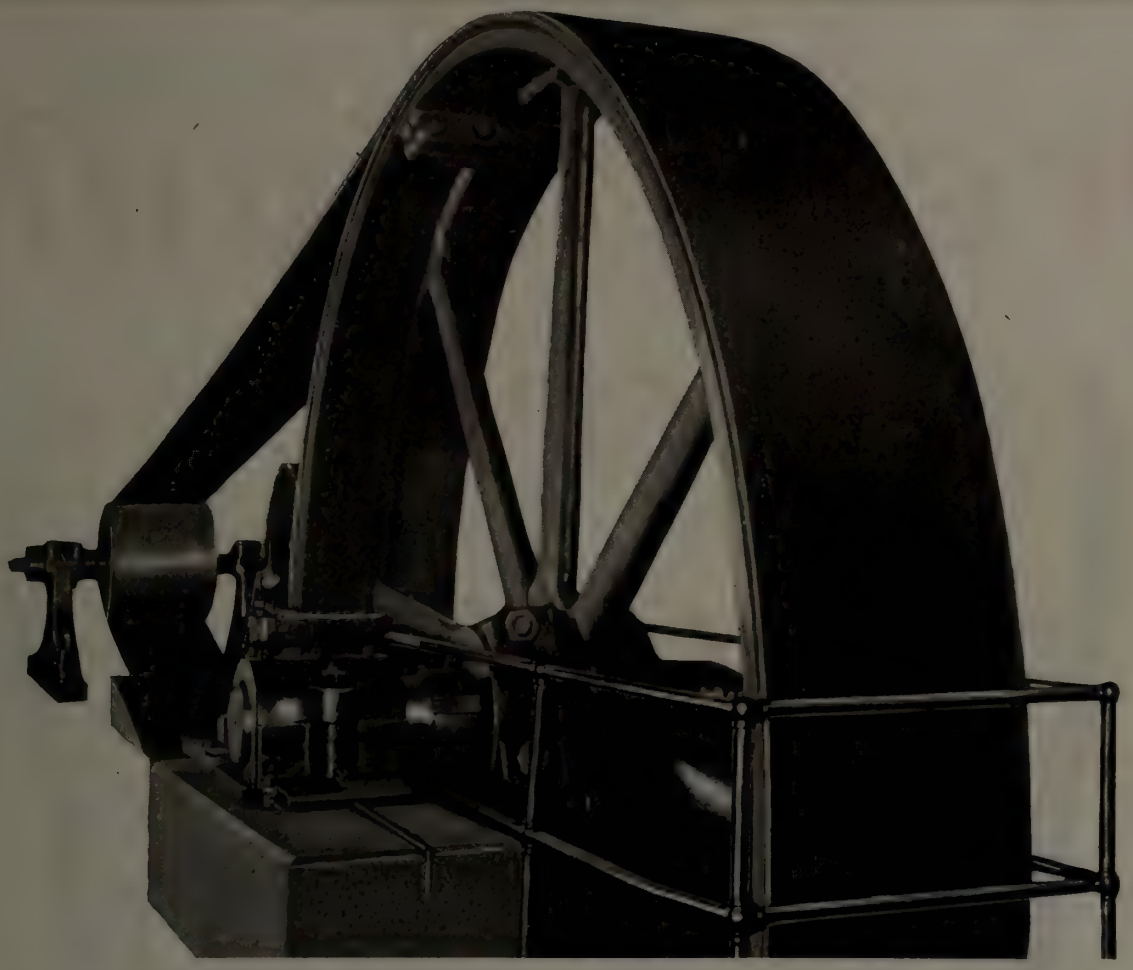
THE REASONS WHY:

Leviathan has far greater tractive power.
Leviathan can be run much slacker than leather, thus putting less strain on the journals.
Leviathan is not affected by atmospheric changes.

Why not give us a trial order
and let LEVIATHAN prove itself?

Main Belting Co., of Canada, Limited

MONTREAL TORONTO



The Right Belt

Buyers of mechanical equipment for the sawmill are choosing belts for **Service.**

The really efficient sawmill keeps figures. Mere price is no longer a determining factor in the buying of equipment. Nowadays men want the records. They judge by **service rendered**—and that is the true gauge of quality and economy.

More and more these men are consulting Goodyear experts in the selection of their equipment. They know that these men are constantly solving new problems in belt efficiency. They know that the very belt for the very purpose is to be found in the Goodyear line. And they are buying with **certainty** because Goodyear experts can give them specific service facts about every particular Goodyear product.

"Extra Power"

Here for instance, is a Goodyear Belt designed for the main drive—edger and planer. It is wonderfully strong. It stands the "gaff" when a big gnarled log hits the saw. It goes right on working under the terrific strain.

"Extra Power" shows the highest friction pull of any belt we have ever tested—fully 10 per cent. better than the next best high quality belt. It is made of the heaviest and strongest duck we use—all laboratory inspected and tested. The stretch is taken out in the making.

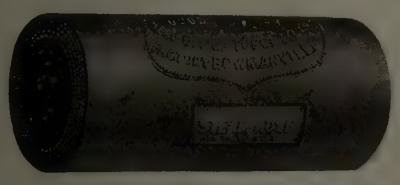
Like every Goodyear belt, "Extra Power" is cured under heavy and carefully regulated hydraulic pressure. This means absolute unity of the plies. Separation cannot happen.

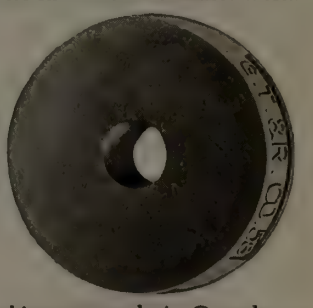
GOODYEAR
TORONTO
Extra Power Belt

Again, every Goodyear Belt has the famous Sealed Seam, another exclusive Goodyear feature. This unifies the seam, making every belt virtually seamless.

"Imperial"

Here is another Goodyear Belt for the sawmill. Designed especially for high-speed and small-pulley conditions. A fine belt for trimmer work.





Hose and Packing

Goodyear Hose and Packing are made for exact service. A special tube compound for every purpose. A particular packing for every joint.

Buy This Way

Let your equipment be **service** equipment. Buy the Goodyear way. Goodyear products, whethe belts, hose or packing are made in Canada at the Bowmanville, Ontario, factory. Here are employed the same quality standards that have won the leadership for Goodyear Automobile Tires.

Ask Goodyear to tell you just what product for the very purpose, and why. Costs nothing to ask questions. Involves no obligation. Write today.

The Goodyear Tire & Rubber Company of Canada, Limited

Head Office, Toronto, Ont. **Factory, Bowmanville, Ont.**

Branches at Victoria, Vancouver, Edmonton, Calgary, Regina, Winnipeg, Hamilton, Ottawa, Montreal, St. John, N. B.

Dreadnaught Steel Hames

No. 8382

Strength Test 6400 lbs.
Length 29 inches over all.
For 20 to 24 inch collars.
Bolt draft for 2 inch trace.
All standard finishes.

TO operate economically you must load your sleds and wagons to their full capacity. But do your hames stand the strain of moving such loads? How many pairs did you break last year. It's not the price of new hames but the loss of time that counts. A broken hame may hold up a team and two or three men for several hours. Minimize such delays—buy **Dreadnaught Steel Hames.** You can ill afford to buy any but the best.

No. 8682

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Length 30 inches over all.
For 20 to 24 inch collars.
Bolt draft for 2 inch trace.
All standard finishes.

For strength and durability **Dreadnaught Steel Hames** are without a peer. They are made of two pieces of selected steel cut and shaped separately and then forced securely together in powerful presses. This forms a perfect truss—the strongest possible construction. They are reinforced at points of greatest strain. By actual test they are stronger than any other hames of similar style. They fit the collar like a glove. Insist on having them for this year's work.

McKinnon Dash Co.

Buffalo, N. Y. **St. Catharines, Ont.**

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canad aLumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.

Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N.Y., under the Act of Congress of March 3, 1879.

Vol. 34 **Toronto, August 15, 1914** **No. 16**

What Will the War Do to Trade?

When the annual issue of the Canada Lumberman for 1913 was published a year ago, the opening editorial contained the statement that there was always a refreshing individuality about business conditions. We were thinking of the trials through which the lumber trade, in common with others, had passed during the previous twelve months, and were taking comfort out of the conviction that the trials of the past were probably preparing us for favors that were to come. Our remark about the "individuality" of business conditions has been more than proved, but as to the "refreshing" nature of it, there may be two opinions. The conditions that have been thrust upon the whole business world during recent weeks, by the coflict on the continent of Europe, are startling, and of stunning magnitude.

It would be of no avail, under these conditions, to encourage either panic or confidence in regard to trade. We simply are in the dark, groping for the light. Business has been stricken, in some quarters, as a tree which has fallen before a storm. There is probably less reason for this however, than most people would admit. Even with the war raging at its height, there is justification to-day for expecting a silver lining to the clouds. If the allies are successful, it is the conviction of many, that better business conditions will in the end prevail. But, in the meanwhile it will take many years to recover from the waste of men and money now taking place. With the return of peace the lumber trade, in common with many others, will be face to face with peculiar conditions. There will be a renewed and probably a great demand for stocks. There will also be a great scarcity of stocks, and there will at the same time be such world-wide demand for money, that industry will be hard pressed to produce the stocks required. There should then be a great opportunity for those countries which are best prepared to furnish the world with its prime necessities. The warring nations will have abandoned, in large measure, their activities in one another's markets. They will be handicapped in their efforts to get business, by the exertions and sacrifices they have made. It is more than likely that the people of those countries that have not been extensively drained of men and money will be best able to take advantage of trade expansion following the return of peace. This is the hopeful aspect of the situation. Just where we are to-day, however, is the most absorbing topic of interest from a business point of view. A lumberman who keeps in close touch with trade conditions at all times, and whose opinion in regard to them is probably as sound as possible, has written for us the following analysis of the situation:—

To imagine one's self in a boat, on a broad expanse of water, minus oars and sails, and drifting at the will of wind and current, is, perhaps, a fit characterization of the condition in which the lumber business of Ontario finds itself to-day.

It is hard to interpret, or define, the source and trend of trade beliefs and opinions, but, after a year of regular and persistent liquidation, the general business sentiment of the country, seemed to be, following the turn into the year of 1914, that the time had come for a resumption of constructive effort on a definite, if not largely expanding scale. As a debtor nation, we had been audited and examined by eminent financiers from abroad, in the interest of our creditors, with the pronounced verdict that business conditions with use were sound, and that we could reasonably hope and expect a gradual return to the satisfying conditions of development that had been peculiarly ours for a period of years, up to 1913. Admonition was plentiful that every suggestion of speculation must be frowned upon, and only legitimate business encouraged.

A result of these hopeful conditions manifested themselves in our own trade, with a good volume of business during late winter and early spring, that was pretty broadly distributed, except in a few sections. In this, we were no doubt helped and influenced by the conditions, which were prevailing in the States, and, where, coincident with our own activities, a revival was likewise being experienced of much the same nature. In neither country, however, did this revival continue, and by early summer we found ourselves again facing flagging business. Since then the word "fitful" entirely characterizes the situation. The regular consuming demand has continuously emptied the bins of dealers, and as regularly they have been refilled; the business has been peculiarly of the "hand-to-mouth" variety. In a way, we were reconciled to this, knowing, by experience, that a condition of moderate dullness, in mid-summer, is inevitable, and we have been satisfied that once the Fall was upon us, the revival of the ordinary trade of the season, would keep us reasonably busy. Collateral to this belief has been the realization that our productive capacity has been largely curtailed, and that in spite of a retrenched consumption, stocks at mill points have not grown. We have nowhere any considerable accumulation of lumber, or lumber products, and this perhaps explains why, with a few exceptions, prices have, on the whole, remained firm, and in some instances advanced.

We have also been influenced by a knowledge that slowly, but surely, conditions in the United States were greatly improved, and as these improvements were realized, we were bound to share in the benefits. Our exports of lumber to that country make us most vitally interested in their welfare, to say nothing of our relation to their other activities. All these expectations, are, however, practically set at naught, by the condition in Europe. This has all come so suddenly, and is so portentous in its possibilities, that he is a brave man, who will predict the extent and scope of its effect. It is fortunate that it has come to us this year, instead of in 1913. We are in better shape to endure the unsettlement of commercial relations. We have liquidated much indebtedness at home, have scaled down our speculative values, and the basis for doing business is generally sound.

In times like these, judgments, by incidental experiences, are superficial and biased. It seems to us that we must be guided by a philosophy that recognizes the fact that consuming demands must be met, that whatever may be the immediate effect of European conditions, the boundless resources and the natural opportunities of this country, will be needed to meet these demands. In the meantime, we must be possessed of patience, and be guided in all our desires and activities, by the realization that Time is the sure solvent of all difficulties, and to those who possess the resources and the ability will come ample reward for their endeavors.

The Reader's Viewpoint on Trade Topics

Recent Trade Developments Commented Upon By Lumbermen—Reports Upon Drive Results and Probable Logging Operations

A prominent lumber manufacturer of Ottawa in a recent letter to the Canada Lumberman reports that one of the most interesting subjects of discussion among lumbermen in the Ottawa Valley today is the effect of low water upon the drives in the provinces of Ontario and Quebec. He reports that one of the large mills in the Ottawa Valley had to stop sawing at nights some tine ago, owing to the low water. This will cut their output about in half. Two other large mills, he says, are securing logs from day to day with great difficulty. Other important mills have had to shut down two or three days in a week because of the shortage of logs. He expects that some of the mills will close for the season during August. Discussing the outlook for production this year, he refers also to the fact that J. R. Booth's mill was out of commission for several weeks on account of temporary damage. Taking all these factors together, he considers it probable that the Ottawa Valley cut this year will be about 100,000,000 feet short. The same writer also advises us that he understands upon fairly good authority that the cut of lumber in the St. Lawrence River district or Quebec, is likely to be greatly reduced this year.

No Reason For Panicky Trade

Editor Canada Lumberman: Snow Road, Ont., Aug. 8.

For the past three months sales and collections have been exceedingly slow, notwithstanding the fact that stocks in retail yards are, and have been low. This is no doubt the result of tight money, as yardmen are working up and disposing of all odds and ends they have that can possibly be made use of. In fact they have been cleaning up, and preparing for the better trade that has been expected.

Hemlock is not only scarce in retailers' hands, but also light with the manufacturers throughout Ontario and Eastern Canada. Most of our customers are having a fair trade, some reporting sales nearly as good as 1913 which was their banner year, and many being ahead of 1912.

A factor that has operated against the manufacturers, cutting off their sales, while the yardman has been doing good business, is the continued dumping in Ontario of southern and sugar pine, and Michigan hemlock and maple, free of duty. There can be no question but that these products have displaced large quantities of lumber manufactured in Canada, which accounts for part of the dullness felt by mill men here. The same measure of protective tariff that is given to other manufacturers, if given the lumbermen, would largely remedy this unnecessary, and unjust condition. Lumbermen should get together in an effort to secure from the Canadian government proper tariff legislation.

Notwithstanding these adverse conditions however, and the greater adversity of war now upon us, with a cut of only 60 to 75 per cent. of normal in Ontario, and with present low stocks in retail yards, we believe the time is coming in the near future, when lumber will be in good demand at good prices. While naturally the first outcome of war is panic, we sincerely believe there is no occasion for people to get frightened, and unnecessarily throw their goods upon the market. Now is the time to steady conditions by holding your goods till they are called for. The trade will take only what it can't possibly get along without, till matters get in a more settled condition; and we think it will be found that trying to force sales by cutting prices, will not only not make sales, but will further weaken conditions. Our sales are at present only about half what they were last year at this time, but we have maintained our regular last year's prices in everything except spruce, which we are selling this year at hemlock prices.

While it is uncertain what course the banks will now take with regard to the financial requirements of legitimate business, it is to be hoped they will be governed by the same broad-minded patriotic spirit, as has been exemplified by the present action of the Canadian government toward the prevention of any financial scare that may be brought about in Canada as a result of the war. We believe a course of reasonable credits to responsible business, should and will be given, as far as possible, by the banks, to the end that all legitimate business and industry may be steadied through the present emergency, after which larger trade and commerce must ensue, as a result of the heavy demands of war upon all industry. While no patriotic citizen desires to make profits out of the waste of war, it still remains a fact, that war must increase the value of all commodities, and that a great European conflict will necessarily make heavy demands upon such products of both Canada and the United States as will be required for the prosecution of the war, thus increasing generally the demand for all commodities. This being so, business should make use of what little encouragement there may be in this, toward dispelling any feelings of panic or despair, to the end that all may be prepared with calmness and coolness to do whatever may be required toward upholding, maintaining, and strengthening the integrity, and supremacy of the empire in this time of its greatest need.—The Chandler Jones Lumber Company.

Changing Conditions Affect Hamilton Trade

Editor Canada Lumberman: Hamilton, July 16.

The building trade here this summer is not what it has been for the last six or seven years. A great number of manufacturers who contemplated extensions have reconsidered the matter and decided to await more encouraging conditions. The increased demand for fireproof construction is also seriously affecting the consumption of lumber. In fact there have been practically no large factories erected here lately that have called for anything in the shape of lumber, except for form work, and in most cases hardwood flooring, and generally some office partitions, etc.

The substitution of steel and cement for timbers, joist, window frame and sash, and a number of other purposes, is making large inroads in the business of the planing mill and lumber yard, and it is just a question in the mind of the writer if the game is worth the candle. When you consider the great difference between this class of construction and what is known as slow-burning mill construction, I question if the additional cost does not largely exceed the saving in insurance. Another feature presents itself to my mind. Why build a factory to stand for say the next fifty years, when the probable advancement in the different lines of manufacture will, in most cases, revolutionize present methods and probably call for altogether different arrangements to those at present in vogue, long before these buildings have passed their usefulness?

These changing conditions decidedly affect the kinds and quantities of stocks which formerly were considered our best sellers. For instance, 3 x 10 in., 3 x 12 ., in varying lengths, as well as the timber squares are giving place to the 1 x 6in., 1 x 8 in., 2 x 6 in., 2 x 8 in., and 4 x 4in. spruce and jack pine for false work, and the consequence is that the lowest grades are bringing prices out of all reason as compared with a good sound knotted white pine strip, scantling or joist.

Another thing that has demoralized the market here, is the dumping of transit cars of so-called yellow pine. This has been sold below the price of No. 1 hemlock; but at that in most cases it has been the dearer lumber. Our experience has bee nthat this stock produces everything that is faulty. In the first place the tree from which most of it is manufactured is about as shortlived a species of wood as grows. Next, the manufacturing is as a rule disgraceful; then the stock is fired into a car with about as much judgment as you would expect from men who never handled lumber, and after four or five weeks of sweating in transit, it is a disgusting mess when you come to unload. Then, should you decide to pile it, you are up against another problem, how to make a decent job of piling stuff which varies in a great many cases an inch in thickness and probably an inch and a half in width, and trimmed (if trimmed at all) 3 in. or 4 in. over or under the specified length. These are some of the objections to the bulk of this class of stock.

Along with the curtailment in factory and warehouse construction naturally follows similar conditions in the erection of dwelling houses, and in this class of business the tightness in the money market has been keenly felt. There is very little sale for completed buildings and no inducement for further ventures just at present. However, we look for improvement in the near future and expect next spring will probably start things on the upward tendency once more.

Prices here have been fairly well kept up and we are in hopes that the trade will keep in mind the fact that cut-throat tactics will not be conducive to better business.—The Patterson-Tilley Company.

Hemlock Men Favor Curtailment

A meeting of the hemlock manufacturers of Ontario was held at the Queen's Hotel, Toronto, on July 30. Among those in attendance were N. C. Hocken, Hocken Lumber Co., Otter Lake; Wm. Elbery, Fenelon Falls; A. C. Mambert, Graves, Bigwood & Co., Toronto; Edward Martin, Muskoka Wood Mfg. Co., Huntsville; L. M. Dougherty, Graves, Bigwood & Co.; J. D. McNeil, Shorheed Lumber Co., Kearney; J. D. Shier, Bracebridge, and Joseph Bird, Bracebridge.

Mr. Hocken occupied the chair and in his opening address reviewed market conditions. He said that, while trade had fallen off, there had been but little decrease in prices. In some instances ab-

normally high figures had been obtained last year, but apart from these exceptional cases, prices had been well maintained up to the present. There seemed at present to be an unsettled feeling in the trade, as the crops were not altogether satisfactory, and the war was affecting the stock market, but he did not think that it would affect the lumber trade to any extent. He advocated a conservative policy. Sales could not be increased by reducing prices. The only competition they had to fear was that of Michigan hemlock, and prices might have to be shaded a little sometimes to meet that. He had no doubt that the Michigan hemlock was being sold on the Canadian market at lower prices than on the other side and if this could be clearly proved by investigation the government might be asked to enforce the dumping clause. No more hemlock should be cut this year than would be sufficient to meet requirements. He thought that 1916 would see a good market. If there were operators who had stock on hand that they were unable to sell they should send their stock sheets to some firm who would help them to get rid of it.

Mr. J. D. Shier said that his stock was practically all sold, though at somewhat smaller figures than last year's. He had heard of a good deal of price-cutting as the competition of American hemlock had to be met. He certainly thought the American stock was being dumped on the Canadian market and agreed with the chairman that it would be well to limit this year's cut. Money was going to be tight and it would be difficult to get advances from the bank for lumbering operations. He considered that operators were paying altogether too much for logs.

Mr. J. Bird pointed out that many towns and villages were almost entirely dependent upon the lumber industry, in view of which the banks should deal more liberally with them. The banks had money for speculators which they refused to legitimate lumbering operations. There was a growing scarcity of hemlock and operators had to go further back every year so there was no need to cut prices.

Mr. J. D. McNeil said that sales could not be made at present prices. It was best to go easy and curtail production this year.

Mr. E. Martin advised caution, as money was evidently going to be tight. It was hard to make sales except at a reduction.

Some further discussion followed showing that the meeting was practically unanimous in favoring a curtailment of production and continued price maintenance as far as possible.

Will Operate On Same Scale as Last Year

Editor Canada Lumberman: Huntsville, Ont., August 6.

We have two camps of about sixty men in the woods. We usually peel about from two to three thousand cords of hemlock bark each year. The peeling season lasts from June 1st to August 1st. Our bush men cut and skid the hemlock that has been thrown down, and swamp the bark into large piles. We have at present between two and three nillion feet of peeled hemlock, upon which our men are engaged. They will cut and skid the hemlock and will also take out any spruce pine or hardwood that may be on the lots on which they are working. We expect our operations for 1914-15 to be about equal to the operations of 1913-14. Wages are considered less than in the fall of 1913. At the present time $28 is high. A year ago we paid as high as $36.

Business in rough lumber this year has been quite active. Our sales have been much in advance of any previous year. There has been a large quantity of American hemlock and southern pine put on the Canadian market this season at a price that held Ontario hemlock prices from advancing. In fact the manufacturer was compelled to accept from one to two dollars less, in many cases, than last year's prices. In talking with several American lumbermen, they claim that they were selling this stock at a loss and that the American market was so unfavorable, that they were compelled to unload, even if they did make a loss on 25 per cent of their stock. The companies who were able to supply hemlock in assorted lengths and widths, did not suffer to the same extent as the smaller manufacturers. We realized, up to the present time, practically as much for the 1914 stock as for our 1913 cut. July and August are usually quiet months and we have the utmost confidence that we will find business better during the fall months. Hardwood flooring has not moved as well during 1914 as in 1913 and 1912. We believe that prices for the lower end of hardwood will be somewhat lower. The price of the uppers will not be affected by the slowness in the furniture and flooring trades. We believe that birch will maintain its present price and there may be a slight advance in firsts and seconds.—The Muskoka Wood Manufacturing Company, Limited.

Expect Crops to Improve Lumber Trade

Editor Canada Lumberman: Ottawa, Aug. 4.

Up to the present, our trade has been about normal this year and, while we find some of our competitors claiming that conditions are improving, personally, we have not noticed any material change. However, with bumper crops almost assured in Canada and the United States, one would look for a revival of business in general during the late winter and early spring of next year. This may be off-set if war breaks out again in the Balkans, which no doubt will have a tendency to retard the revival of trade until conditions get back to normal in the east.

We are advised that prices on low grade southern pine, have recently advanced fifty cents per thousand feet ,with a likelihood of a still further advance in the near future. That, along with the short cut in the Ottawa Valley this season should help to improve at least the lumber business in Eastern Canada in the course of the next four or five months.—Shepard & Morse Lumber Company.

Brighter Outlook at Pembroke, Ont.

Editor Canada Lumberman: Pembroke, Ont., Aug. 3.

We are pleased to state that market conditions are looking somewhat brighter in this district. The spring trade was rather disappointing at the outset, but a steady betterment has been noticed, and from present indications, a good fall trade is expected.

Our logs are all now in the main river, and are in no danger of being stuck, although we are not getting them to the mill very quickly.

So far this season, we have not lost more than forty-eight hours on this account, and do not anticipate any further loss of time.

We understand that some of the mills have lost considerable time up to now, and it is quite probable that the cut will be curtailed twenty per cent. on this account.—The Pembroke Lumber Company.

Got Out All Their Drives

Editor Canada Lumberman: Ottawa, Ont., Aug. 3.

All of our logs in last spring's drive were delivered into the Ottawa River by the first week in July. Regarding the other firm's drives, we understood that some of them were hung up but we cannot speak with authority on this point.

As to the coming season's operations in the camp; it is our understanding that there will be about the same amount of logs taken out as there was last year. While a few of the operators expect to take out considerably more timber on account of property recently acquired having a quantity of blown-down timber, there are others in the trade who contemplate a considerable curtailment on last year's operations.—Shepard & Morse Lumber Company.

Suspect Extensive Price Cutting

Editor Canada Lumberman: Burks Falls, Ont., August 1.

Business seems to be very difficult to get this year. Evidently there is an enormous amount of price cutting being done, as we have several times lost large orders to other mills, which we were informed had bid much lower than we did, although we had given what we considered to be a very low price.

Comparing this year's business with last years, we may say that, for the first six months of 1914 the volume of our business has been 79 per cent. of that for the first six months of 1913.—The Knight Brothers Company.

Trade Quiet At Chesley, Ont.

Editor Canada Lumberman: Chesley, Ont., Aug. 3.

Last year was a very good one for us in the lumber trade. During the present season, trade has been very quiet. Not much building is being carried on in this locality. So far, prices have held up well. Our stock this year is mostly hardwood, which I think will be quiet for some time, as the factories are not buying any great quantity of lumber. However, I expect the market to brighten up after the harvest.—Jas. Anderson.

Drives Cost More Than Usual

Editor Canada Lumberman: Lindsay, Ont., July 25.

We find trade conditions very little changed. It is quiet in orders for railroad construction. Elm and ash are scarce, and the market is good. Hemlock is holding its own. Lath are scarce.

Owing to the scarcity of water, several of the drives were held up and those that did come down cost a lot of money to land. We do not look for any reduction in prices.—The John Carew Lumber Company, Limited.

Find Trade Still Active

Editor Canada Lumberman: Buffalo, N.Y., August 3.

We have been favored with shipping instructions right through the spring and summer, and today are pretty well shipped up on seasoned stock. We expect to resume shipping again by the middle of the month, and are looking for steady demand throughout the summer following and winter.—New Ontario Colonization Company.

Keewatin Trade Depending Upon the Crop

Editor Canada Lumberman: Keewatin, Ont., Aug. 3.

Market conditions with us are hardly as good as they were last year. The ordinary business being slightly smaller. Present conditions, from the market standpoint are poor. The fall trade will depend entirely upon the crop, and it is rather too soon yet to say what this will be.

A Cheerful Note from Nova Scotia

Editor Canada Lumberman: Bear River, N.S., Aug. 6.

The present season is rather a peculiar one. Owing to the almost entire absence of satisfactory demand from the South American markets, a change has been necessary in the manufacturing of the smaller class of logs. Speaking for ourselves, we have not found the change detrimental. A number of orders came to us from various American points, for small sizes, which have used up most satisfactorily everything we had to dispose of up to the present time, and, prompt shipments being required, we have never been so closely shipped as at present. This probably is due to two causes, one the excellent demand from the American points above referred to, the other the fact that we got our mills started much later than usual.

In sawing South American lumber, we frequently have to pile up some millions, awaiting the time when satisfactory tonnage can be secured, which is a serious disadvantage, and it would appear, if present conditions are to continue, that the South American market is not of as much value as we have heretofore supposed.

The cut in the western part of Nova Scotia was smaller than usual last season, due to the fact that some of the operators who formerly cut large quantities of lumber are doing nothing during the present year. While the cut in this locality is fully up to the average, the cut in the western part of Nova Scotia will be some thirty millions less than the average for the past ten years. We have in hand at the present time, unfilled orders for about four millions of lumber, and are daily receiving orders which we are unable to supply. Personally, therefore, we have no fault to find with present conditions although we do hear from some quarters that this condition is not general.

The prevailing sentiment seems to be that with the approach of autumn we are to experience a revival in all branches of trade, in which the lumbering industry will share.

Our understanding is that the close of the present year will see the smallest quantity of lumber carried over into the next year, and a closer clean-up, than for the past twenty years.

We see no reason for discouragement. Demand is arising for various classes of manufactured goods which can be made from the class of stuff which a few years ago we regarded as of little or no value, being practically by-products of the lumbering industry.

With the increasing demand and the decreasing supply, the inevitable law of "supply and demand" will produce the usual result, namely, the enhancement of values in all grades of lumber—Clarke Bros., Ltd.

Nova Scotia Spruce Trade Improved

Editor Canada Lumberman: Weymouth, N.S., Aug. 4.

Trade in spruce has been at fair prices, and it is now commanding cash f.o.b. here—the old commission consignment plundering at the delivery end being almost eliminated. Hemlock also has been in fair demand at profitable spot cash prices.

Pulp has been low and markets over-stocked, but old contracts this year have been fairly lived up to, so that low profits are helping us out. Both of these features—shirking of contracts on a broken market, and very high freights in 1913—were very annoying trade features.

We have many millions of virgin growth birch, beech and maple, and would appreciate very much any information which would lead us to a fair outlet. Unlike other timber, this must be sold this year before it is cut.—Campbell Lumber Company, Limited.

New Brunswick Export Trade Dull

Editor Canada Lumberman: St. John, N.B., Aug. 3.

If anything the United States market is worse now than it has been any time during this season. The English market has shown no life. There has been a slight easing in prices during the last month and freights have advanced from 5s. to 7s. 6d. per standard.

Stocks on the other side are ample, in fact, they are too heavy and there does not seem to be any chance for any immediate improvement.

In reply to your recent enquiry, my mill at South Bay is 178 ft. long by 54 ft. wide, with a monitor extending the whole length of the mill. The foundations for the building and for all the machines are concrete, and the mill is equipped with a single cutting band mill, and one Giddings & Lewis horizontal resaw with divided rolls. The slabs go through one side and the deals and planks go through the other. Then there is the usual lath mill, also trimmers and edger, a box-making machine, and one heading machine. In addition to this there are nine stave machines, five of these being for the manufacture of barrel staves, the others for keg staves. I have not used these four keg machines this season, on account of the dullness in the nail trade.

The lumber business as a whole in the Maritime Provinces this year is not very satisfactory. The English market has slumped off since last winter and the American market is practically nil. Business has never been so dull with them for a number of years. We are, however, living in hopes that next year we may see improved conditions and prices.—John E. Moore.

Ottawa Firms May Reduce Woods Operations

Editor Canada Lumberman: Hull, P.Q., Aug. 4.

We are convinced that the cut of lumber in the Ottawa Valley this year will be very considerably reduced. We are unable to even approximate the quantity.

Recent events have changed the whole aspect of the lumber business. Men are being withdrawn from the woods, and certain of our manufacturers are contemplating doing little or no lumbering this winter.

As you are aware shipments from the Port of Montreal for Liverpool are completely at a standstill and in other directions lumber is not moving well.

By this time you are doubtless aware that our company has had a very serious fire, which destroyed several millions of feet of lumber. For ourselves, we have not as yet decided just what we will do in the way of getting out logs, whether to make none at all or only half of the usual cut.—Gilmour & Hughson, Limited.

Southern St. Lawrence Drives Successful

Editor Canada Lumberman: St. Pacome, P.Q., August 1.

From information I have received, I understand that practically all the drives on the South Shore of the St. Lawrence River, and most of the drives in New Brunswick were taken out successfully.

Regarding the North Shore, there seems to be a certain quantity hung up, but information regarding this is hard to secure, as every other lunberman you meet has a different version regarding the quantity hung up, especially on the St. Maurice River.—W. Gerard Power.

Quebec Production Depending on Money Situation

Editor Canada Lumberman: Trois Pistoles, P.Q., August 1.

Some of the sawmills in Quebec began sawing late this spring, on account of the log drive being delayed. We cannot see, however, that there will be any heavy decrease in the production of lumber in this district, unless the money sringency should affect the heavy manufacturers.—Trois Pistoles Pulp and Lumber Company.

The Outlook a Matter of Doubt

Editor Canada Lumberman: Montreal, Aug. 5.

While we sometimes think there is a slight improvement in business, it is very hard to make any definite statement as to the outlook for the fall trade. Up to the present, trade during 1914 has not been as good as it was last year.—The McLennen Lumber Company, Limited.

Ontario Furniture Trade Buying Little Hardwood

Editor Canada Lumberman:

We see no prospect of improvement in the demand for hardwood lumber, as the consumption depends entirely upon the furniture business. The latter, at present, is about as slack as it can be and prospects for inprovement are poor.

From what we can learn and from our own observation we believe that on account of the heavy wind fall in 1913, a great deal of the hardwood was blown down in the counties of Bruce, Grey, Simcoe, Huron, Perth, Wellington and Dufferin, and in order to save this timber it was marketed last winter. In consequence, every little mill as well as larger ones, were stocked to their full capacity. This, under the most favorable circumstances, would be more than sufficient for home consumption in the furniture line, but adding to this the depression in trade, there will probably be twice as much hardwood lumber on hand this fall as there was a year ago. Under these circumstances we can not see that lumber will rise in price, or even hold its own. The stability of the hardwood lumber business seems to us to depend largely upon the holders' ability to carry their stock.

Consumer.

Mr. R. D. Craig, of Vancouver, B.C., has been appointed by the Conservation Commission of Canada to make a survey of the timber resources of British Columbia and other areas lying west of the Cascade range. Mr. Craig will determine the quantity of timber, its location, etc., and his findings will be issued in the form of a bulletin by the commission.

Ontario Woods and Forests Report

Total Revenue Accrued of Over Two Million Dollars —Output Reduced by about Five Million Feet

The annual report of the Minister of Lands, Forests and Mines of the Province of Ontario for the year ending October 31st, 1913, has just been issued. The total revenue accrued for the year ending the 31st of October, 1913, from woods and forests was $2,127,22265.—an increase of $59,162 over last year. The revenue collected during the year from the same source amounted to $1,979,125.81, which was only about $6,000 less than the collection of last year; and last year was somewhat of a record year, as the revenue collected exceeded that of the previous year by $274,000. The revenue derived from timber dues was $1,277,490.08 as against the collection of $1,339,957,12 for last year. The collection on account of bonus was $591,676.29 as against the collection of $540,702.85 for last year. The collection on account of ground rent was $99,460.19, as against $96 262 for last year. The collection on account of transfer bonus was $10,500, as against $8,740 for last year.

Statistics of Operations

The area under timber license for the season of 1913 was 17.519¼ miles, as against 18,410 miles for last year. The area under license fluctuates from year to year for the following reasons: Areas are cut out and surrendered by the licensees and there are other areas on which the ground rent is not paid and the license does not issue. There was surrendered this year 257 miles and new licenses were issued for areas sold during the year amounting to about 100 miles. The output of pine sawlogs, booms and square timber in feet board measure was 360,377,168 feet board measure, which is 127,661,498 feet board measure below the output of last year. The output of timber other than pine was 64,497,036 feet board neasure as against 69,373,572 feet board measure for last year. The quantity of pulpwood taken out from Crown Lands was 131,434 cords as against 140,338 cords for last year. There were 6,355,828 pieces of railway ties taken out this year as against 5,704,559 for last year, or an increase of 651,269 ties over the output for last year. It will be seen that, as was expected, the output of all kinds of timber was considerabliy below the output of last year, except railway ties. The great scarcity of money compelled a number of lumbermen to shorten up their operations, while others did not operate at all. It is not expected that there will be much increase in the cutting of the present winter as the financial stringency has not entirely ceased.

During the year the pine timber in the Townships of Thistle and McWilliams tributary to Lake Nipissing was offered for sale by public tender. The Departnent had careful examinations made of the Townships which showed that a large percentage of the timber in them was mature and that the large timber was very faulty. There was a request from the Ontario Pulp Company to be allowed to get a part of its supply in these townships, and there was the danger of fire owing to the construction of the Canadian Northern Railway in the neighborhood. Under these circumstances it was considered advisable to offer the timber for sale, and it was accordingly sold, subject to an increase in ground rent from $5 to $10 per mile, and an increase in the timber dues fron $2 per thousand to $5 per thousand, and the important condition was put in that no trees of a less diameter than 12 inches on the stump 2 feet from the ground should be cut. The increase of the ground rent and timber dues was a substantial one and the conditions prohibiting the cutting of small trees were new. The amount realized from the sale was $147.500 or an average per acre of about $3 with $5 per thousand to be paid when the timbed is cut.

Fire Ranging

The fire ranging service during the sumner was composed of 217 rangers in forest reserves, 208 on railways, and 114 on lands of the Crown. There were 34 chief rangers including the services of the Crown Timber Agente; 4 assistant chief rangers, and 8 supervising rangers on licensed lands, making a total of 585 men. The timber licenses had on their various limits 350 rangers, so that the total staff of firerangers on duty last year was 935 men. There were no serious fires during the past season on lands of the Crown except in the Township of Dana, and there the timber damaged was disposed of and will be cut this winter. On licensed territory the Georgian Bay Lumber Company had sone timber burnt by locomotives of the Canadian Pacific Railway, and on the Booth limits tributary to the Mattawa River some timber was damaged in the course of railway construction. These are the only fires of any consequence which occurred on lands of the Crown or licensed territory during the present year.

The expenditure on fire ranging for the past year has been as follows:

On Crown Lands	$65,000.00
On Railways	80,000.00
On Forest Reserves	88,000.00

The report shows that the area covered by timber licenses was 17,519¼ square miles. The actual output of pine saw logs is given as 338,802,011 feet board measure, which consisted of 8,562,298 pieces. The output of saw logs other than pine was 58,703,426 feet b.m. Pine boom and dimension tinber was cut to the extent of 15,458,077 feet b.m. and other boom and dimension timber to the extent of 5,492,-549 feet b.m. The output of square timber was 511,490 cu. ft. The production of tan bark amounted to 4,508½ cords. Railway ties were produced to the number of 6,355,828 pieces. The pulpwood production amounted to 131,434 cords.

The amounts accrued to the woods and forest branch were made up as follows:—transfer bonus $10,500.25, interest $9,015.57, trespass $19,625.02, timber dues $1,272,816,36, bonus $614,227.86, deposits on timber sales $101,940.50, ground rent $99,097; total $2,127,222.56.

A Western Souvenir Worth Having

A handsome pennant was issued by the Hoo-Hoo of Southern British Columbia in honor of the great Concatenation and Pageant Parade held in Vancouver on June 12th last. The Great Black Cat is shown upon the pennant wearing a crown in order that he may not be mistaken for a green-eyed prowler from the onion beds of Washington, just across the border. As there were some two hundred pennants remaining on hand after the parade, Mr. J. G. Robson, Vicegerent Snark of Hoo-Hoo, conceived the happy idea that Eastern Canada Hoo-Hoo might welcome a chance to secure one as a souvenir of the greatest demonstration ever held by the Black Cat fraternity of the Pacific Coast province. Given the place on the office wall that it is fitted to adorn, the pennant will interest every visitor and serve to strengthen the bonds which unite all members of the order—east, west, north or south.

Send one dollar to Timberland Lumber Company, Limited, Westmintser Trust Building, New Westminster, B.C., and you will receive one of these handsome souvenirs by return mail.

Upper Fraser River Company Being Reorganized

At a meeting of the shareholders and bondholders of the Upper Fraser River (B.C.) Lumber Company, held in Montreal on August 3, a scheme of reorganization was adopted. The company own 280 miles of timber limits between Fort George and Tete Jeune Cache. Owing to delays in the construction of the Grand Trunk Pacific Railway, the company were unable to meet the interest on the bonds, as no revenue was coming in, and a reorganization was necessary. It is stated by an official that the erection of the frame of the permanent mill at Dome Creek has been completed and it has been roofed in, and stables, bunk-houses and sundry other buildings have been erected. About 120,000 feet of sawn lumber is in the yard and 100,000 feet of logs on skids ready to be sawn. About fifteen acres adjacent to the building has been stumped and cleared. The grading of the spur from the mill to the main line of the Grand Trunk Pacific has been completed, and is ready for the laying of the steel. Everything is practically in readiness for the installation of the mill machinery as soon as it is decided to ship it west.

Under the scheme of reorganization, a new company will take over the assets. The capital is $2,500,000 6 per cent. non-cumulative participating shares, $750,000 common shares, and $750,000 first mortgage 6 per cent. 25 year bonds. The existing bondholders have agreed to exchange their bonds at par for an equal amount of preferred shares, plus an amount representing all arrears of interest. The holders of existing common stock are entitled to an allotment of fully paid ordinary shares equal to ten per cent. of their existing holdings, the balance being held in trust. The board express a high opinion of the quality of timber, logging facilities and general position of the property.

A Forest Protection Campain in B. C.

The forest branch of the Departnent of Lands, Victoria, B.C., has put into operation a systematic campaign for forest fire protection. Altogether, over fifty thousand curculars, psoters, pocket whetstones, etc., have been distributed all over the province, to lumbermen and wood men of all kinds, newspapers, banks, hotels, stores, clergymen, school children, etc. The response has been most gratifying. The latest and probably one of the most effective moves in the campaign is the plan to reach the people by means of moving picture theatres. A numbed of educational slides have been designed and will be shown at practically every moving picture theatre in the province, through the co-operation of the proprietors. The pocket whetstones sent out by the branch have been designed specially for the boy scounts of British Columbia and a large number of them have been distributed through the scout masters.

New Plant of Graves, Bigwood & Company, at Byng Inlet, Ont. Panoramic view showing Log Booms, Sawmill, Box factory, etc.

Splendid New Sawmill at Byng Inlet

Graves, Bigwood & Company's Modern Plant—Producing Two Hundred Thousand Feet in Ten Hours—Exceptional Efficiency Secured

On May 20th, 1912, the town of Byng Inlet, Ont., suffered one of the most serious losses by fire in its history. One would hardly imagine, upon visiting the town today, that its prosperity and activity had ever suffered a really serious blow. Nevertheless, those in the lumber business know well that the splendid mills of Graves, Bigwood & Company were utterly obliterated by fire on the above date. The loss was not only a serious one for the firm, but a terrible misfortune for the people of the town, where it is the sole industry of importance and gives employment to a great nunber of men. Some time elapsed before the company completed their plans for building a new mill. Operations were at last commenced in May, 1913, and the new mill, as it stands today, was put into operation in September of the sane year. Today it is operating steadily and in the most satisfactory manner. It has an ordinary capacity of about 200,000 feet in a ten hour day.

The old mill at Byng Inlet was built by Holland & Graves, the predecessors of the firm as it exists today. This mill had been operated for fourteen years, when it was destroyed. The firm of Graves, Bigwood & Company consists of L. P. Graves, W. E. Bigwood, A. C. Manbert, H. I. George, and N. Holland. Sawmilling operations have been carried on at Byng Inlet since the early eighties. Such lumbermen as Anson Page, Burton Bros., and the Georgian Bay Lumber Company, have at one tine or another been large operators at this point.

A visitor to the new mill at Byng Inlet is certain to be impressed, first of all, by the remarkable rigidity which has been secured for the plant. This is a result of having placed the building upon solid rock and concrete foundations. The ground floor and foundation walls are also built of concrete. The foundations for the large machines in the mill are of exceptionally substantial reinforced concrete. One of the points of interest in connection with the construction of the building is, that it is furnished with a steel truss roof. This enables the company to omit the use of posts on the sawing floor. Thus there is from one end of the sawing floor to the other, a practically uninterrupted view of every operation. Moreover, the floors of the mill are of exceptional height, giving plenty of room for all operations. The distance between the ground floor and the sawing floor is 16 feet and fron the sawing floor the distance to the roof trusses is fourteen feet. The filing room, which is located directly over the two band saws, is also a spacious room, in which the filer is able to move about with comfort and take excellent care of all his materials and equipment.

Complete and Modern Equipment

In the matter of equipment, the new mill at Byng Inlet is second to none, so far as efficiency is concerned. The sawing equipnent includes two single cutting band saws, a gang saw, two edgers, two horizontal resaws, and two trimmers, most of the equipment having been furnished by the Giddings & Lewis Manufacturing Company, of Fond du Lac, Wis. The machinery is driven by two engines of the Corliss pattern. One of the engines is a Filer & Stowell driving

Sorting platform at Graves, Bigwood & Co.'s new plant, Byng Inlet, Ont.

Interior view of mill, Graves, Bigwood & Co., Byng Inlet, Ont.

The Filing Room—Graves, Bigwood & Co., Byng Inlet, Ont.

the main line shaft. The other is an Allis-Chalmers, and drives the balance of the mill, including the lath mill. The Filer & Stowell engine is of about 450 h.p. and the Allis-Chalmers, 350 h.p. Power is furnished by nine boilers nade by the John Inglis Company, Limited, Toronto, and the Wm. Hamilton Company, Peterborough, Ont.

One of the most interesting parts of the equipment is the trimmer outfit. This is worked by compressed air, having a patent air lift (Cleveland patent), furnished by Giddings & Lewis.

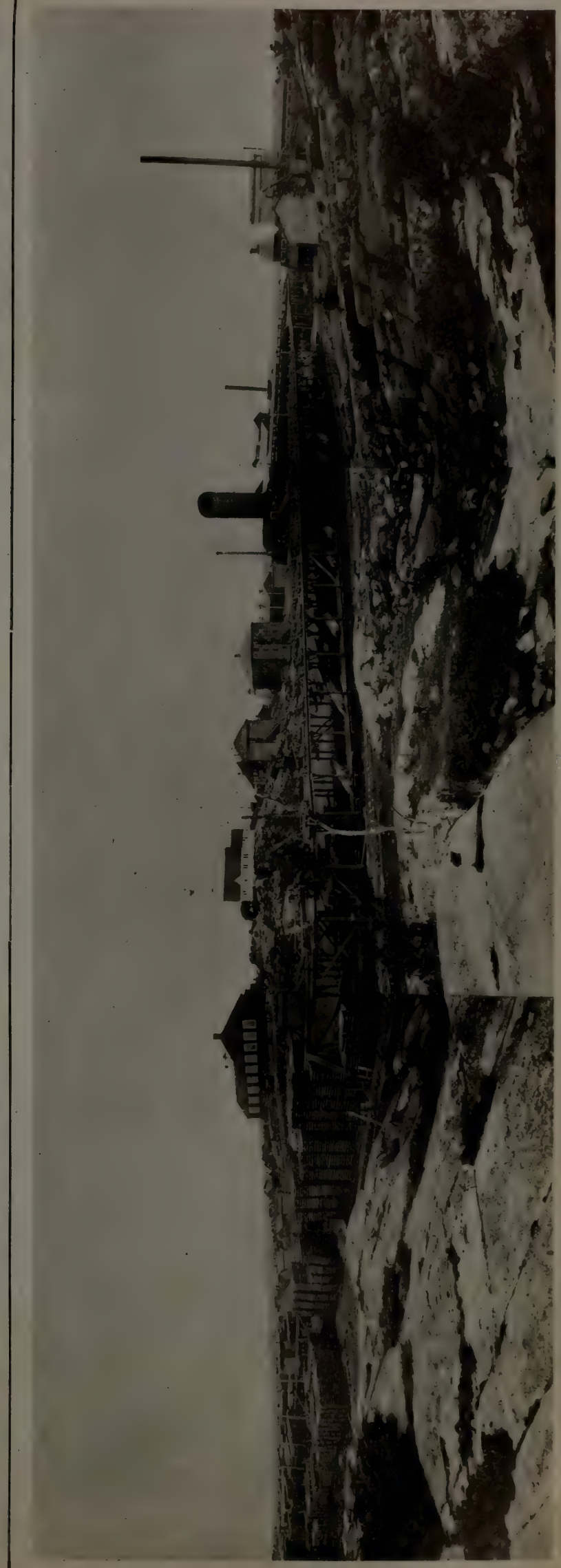
The resaws are practically horizontal resaws to which a few alterations have been added, which the company have found to be especially required for their class of work. The carriages for the two band saws are equipped with steam set works. The two band mills carry saws of fourteen gauge, 12-in. wide. The gang saws are 13 gauge, the edger saws 8 gauge, the trimmer saws 10 gauge lance tooth and the resaws 16 gauge 10-inch.

The equipment for the mill is supplemented by an excellent lath and picket manufacturing plant. The lath mill was furnished by the P. Payette Company, Penetanguishene, Ont., and has a capacity of from 45,000 to 50,000 pieces per day.

The equipment in the filing room includes the latest machines for this class of work, some of then being Hanchett and some of them Covel. The machines in the filing room are driven by a separate engine. Each machine throughout the sawing plant is connected with the driving shaft by a clutch pulley, which enables the company to operate all at one time or to stop any individual machine without closing down the rest of the mill.

The boilers are in a metal and brick building, which is absolutely fireproof and entirely separate from the sawmill. They stood through

The Engine Room—Graves, Bigwood & Co., Byng Inlet, Ont.



Graves, Bigwood & Co., Ilyng Inlet, Ont.—Pathoramic view showing from left to right, Piling Yards, Tramways, Boarding House, New Sawmill, Boiler House and Box Factory.

the fire which destroyed all the rest of the plant, and were not affected in any way.

The mill building is covered with Johns-Manville asbestos roofing, giving it a very neat and substantial appearance. The fire pump for the sawmill building is located in a separate fireproof building and has a duplex steam pump with twelve-inch suction and ten-inch discharge. Another fire pump is provided in connection with the box factory. These two pumps can be worked together, or can be used individually.

The Electric Lighting Equipment

The electric lighting equipment in the new mill consists of a direct connected, direct current C.G.E. generator, driven by an Ideal engine furnished by the Goldie & McCulloch Company, Limited, Galt, Ont. It will furnish current for 600 sixteen candle power lamps. The box factory is lighted by another engine and generator which furnish current for nine hundred, sixteen candle power lamps, which includes the light for the town of Byng Inlet.

The large refuse burner operated by the company is a survivor from the fire. This burner was built by the Wm. Hamilton Company, Limited, Peterborough, Ont. It is 34 x 135 feet. The William Hamilton Company also furnished the smoke stack and main steam connections for the new plant.

Complete machine and blacksmith shops are also operated by the company. The equipment of the machine shop includes two lathes, a planer, a shaper, a power drill and a thread-cutting machine. This is all driven by independent power.

In addition to their sawmill, lath and picket mill, the company operate an up-to-date box factory and planing mill, which are located in a separate building some distance away from the sawmill. The company were fortunate enough to save this building at the time of the fire. The equipment of the box factory and planing mill consists of a complete set of planing machinery, matchers, moulders, rip saws, siding saws, etc. The box factory and planing mill are housed in one building, the former being in the upper storey and the latter on the ground floor.

One of the most important features in connection with the mill is the excellent arrangement for sorting the output. A glance at the illustration of the sorting platform shows that the company have unusual facilities for separation and classification. Room has been made for about 140 divisions, which permits the stock not only to be sorted into widths and lengths, but into an unusual number of grades to suit the varied needs of all sorts of consumers. This enables the company to furnish specialties not ordinarily possible, and emphasizes the unique completeness of their operating facilities.

A good system of elevated tramways connects the sawmill with the yards. These yards are located a considerable distance away from the mill towards the west. The prevailing winds on the Georgian Bay are south west, so that there is practically no possibility of a fire, which might originate in the town, communicating itself to the piles of lumber in the yards. The tramways serving the lumber yards were not injured by the fire. They are built in a very substantial manner, and are considerably higher and larger than the average saw mill tramways.

In the village of Byng Inlet the company own over one hundred houses, which are rented to their workmen. They also conduct three large boarding houses for the accommodation of the employees. One of the most important features in the town of Byn Inlet is the store operated by the company, where an excellent stock of all kinds of necessaries is carried at all times. The company take special care to see that the merchandise is all of a high quality and that the employees get the best possible value for their money. The Byng Inlet offices of the company are located over the store, and on the third floor of the same building are a number of rooms for the convenience of various employees of the company.

Altogether, one cannot fail to be greatly impressed with the remarkable efficiency and completeness of every operation carried on by the company at Byng Inlet. The whole town depends upon this industry for its livelihood, and the company have taken every precaution to ensure that the interests of the people of Byng Inlet are promoted in the most successful manner. The result is a commendable spirit of co-operation on the part of all who work for the company. The town is not only a thriving and peaceful industrial centre, but probably is one of the most law-abiding and respectable communities to be found anywhere in Canada.

Marked Expansion of a Young Toronto Firm

A wholesale lumber firm which has shown remarkable expansion in the face of a quiet season, is that of Read Bros., Limited, Toronto, who carry a full assortment of spruce, hemlock, white and red pine, and of which Mr. Alex P. Read is president, and Mr. Alfred E. Read, secretary-treasurer. During the first half of 1914 the company announce an increase in their trade of over 60 per cent, compared with the corresponding period of 1913. Up to several months ago the Messrs. Read took care of their out-of-town customers personally, but it was found that increasing business demanded more attention, and they have now two salesmen in addition to Mr. Geo. Thompson, who was formerly President of the Goderich Lumber Company and a well-known lumberman of Western Ontario, who is travelling out of Goderich for them, and Mr. A. E. Smith out of Toronto. Mr. Smith was for a time in charge of the plant and operations of O. H. Moxley, of New Liskeard, and latterly for a short time with W. B. McCulloch, of Brampton, and T. H. Hancock, the well-known Toronto retail dealer. This season, among the stock they are handling, Read Bros., Limited, are taking all the soft woods sawn at the large mill at Whitney, Ont., the majority of which will be spruce, and which will approximate 15 million feet. They have two large lumber mills turning out American hemlock and have already this season done a large volume of business in this particular line.

The progress made by this firm has been very marked. In 1910 Mr. Alfred E. Read started in business at 18 Toronto street. The business grew and during the following year he formed a partnership with his brother, Mr. Alex P. Read, under the name of Read Bros. and moved to 43 Victoria street. The beginning of 1913 found the business still expanding and the partnership was turned into a stock company under the name of Read Bros., Limited.

The Muskoka Wood Manufacturing Co.

The accompanying illustration gives practically a bird's-eye view of the Huntsville plant of the Muskoka Wood Manufacturing Company, as it appeared on July 30, 1914. The picture shows two dry kilns with a capacity of 150,000 feet at one time, sawmill, factory, store room, docks, booming ground, general offices, and eight railway spurs, with 5,000,000 feet of lumber in the yard, also a large quantity of lath and slabs. The plant covers fifteen acres extending north to the railway bridge.

At the time that the picture was taken, two cars of birch flooring were being loaded, from the storehouse on spur No. 8, one with

Muskoka Wood Manufacturing Co., Huntsville, Ont. Bird's Eye view of plant.

24,000 feet of 13/16 "Red Deer" selected red birch, for a Vancouver firm, and the second with 22,000 feet of No. 1 "Red Deer" birch for an Ontario firm. The company nanufacture birch, maple and oak hardwood flooring, all thicknesses and stock 3/8 and 13/16 all grades. All flooring is matched, sides and ends bored for secret nailing, steel polished and bundled.

Referring to their Red Deer brand birch flooring the company state that it costs no more than maple, works and lays easier, wears as well and looks better when properly finished. They can furnish rough birch and hemlock bill timber, spruce and white pine flooring and lumber, also lath and shingles, and will be glad to send quotations to any of our readers who apply for them.

The Ontario Lumber Company, which is now in liquidation, is advertising its limits, mills, camps and other properties for sale by tender. The limits cover an area of about 400 square miles and the stand of timber is roughly estimated at 300,000,000 feet, composed largely of hemlock. Mr. Bryan Pontifex, of the Imperial Bank Building, Toronto, is liquidator.

The ravages of the spruce bud worm are causing New Brunswick authorities much concern. Reports have ben received at the Crown lands department in Fredericton from the northern, as well as the southern, section of the Province, with exhibits showing the ravages of the pest, which completely destroys the young buds, causing the whole tree to turn brown. An official of the department said that the unfortunate part of it is that it has no effective means of fighting the pest.

One of Ottawa's Notable Industries

Remarkable Expansion of W. C. Edwards & Co., Ltd.

The City of Ottawa, Ont., is known throughout the lumber consuming world as the home of a number of large saw mills and wood working factories, which have grown up with the lumber industry, and have become of such great importance to the industrial life of the country as to become practically national institutions. One of the most important and striking instances of this industrial growth, is the plant of W. C. Edwards & Company, Limited, at New Edinburgh, an eastern suburb of the city of Ottawa. Every one in the lumber industry is more or less familiar with the importance of this firm and the remarkable development which it has undergone. No one however, can even remotely appreciate the enormous activities of this company, or the wonderful equipment which it has assembled, without visiting the plant and seeing all its facilities for the production of high class material of every variety manufactured from lumber. The first impression which one secures when visiting this plant is that of the infinite pains and care which have been given to the securing of permanence and stability in connection with all the buildings in which the numerous departments are housed. It would be impossible, short of publishing a very large book, to give a description of all these departments. The object of this article is rather to touch upon a few outstanding features so as to give a descriptive impression of the whole.

Plant of W. C. Edwards & Co., Ltd., New Edinburgh, near Ottawa, Ont.

The wood working plant at the New Edinburgh mills is housed in a solid reinforced concrete and brick building, being as nearly fireproof as engineering skill and money can make it. In the sash and door and interior finish factory alone, employment is afforded for between seventy-five and one hundred skilled mechanics, who are receiving the highest wages obtainable for first-class workmanship. The raw material upon which they operate includes red and white pine, birch, red oak, plain and quarter cut oak, ash, beech, maple, and basswood. These are all carried in stock, and the firm also import in large quantities of such woods as mahogany, walnut, teak, red gum, cypress, yellow pine, whitewood, white oak, plain and quarter cut oak, etc., which are used in the production of high class interior finish.

Among the productions of this plant are included a great deal of the choicest lines of hardwood finish for interior office, house, bank, church and railroad stations work; notable examples of the output being the interior work done in the Chateau Laurier, The Grand Trunk Railway Station, the A. E. Rae Company's Building, the Ottawa Journal Building, the Roxborough apartments, etc.

The Door Department

One of the most interesting branches of the plant is the door department where doors are manufactured in every variety of finish. The cores are built up with extreme care, so as to eliminate warping, shrinking, or twisting. Only men of exceptional experience are employed in this work, which also requires the best material obtainable, and the latest improved machinery. All the veneers, which are used in door production are selected with extreme care for their color and grain.

On leaving the interior finish factory one notices immediately the sprinkler system installed throughout the yard, store houses and buildings. Wherever there is any danger of freezing, or where climatic conditions would render the wet sprinkler system unsuitable, the compressed air system is used. In fact every practical means has been adopted for fire prevention. Not only is the plant equipped with an efficient sprinkler system, but one comes across hydrants, installed at important points for fire prevention. The Dominion Signal and Messenger Service is also installed by means of which a watchman is telephoned to in case he is fifteen minutes late in ringing in any station. This insures that every department shall be inspected by the watchman once an hour.

In the planing mill, which a visitor would probably inspect after passing through the interior finish factory, there are located five planers, a power trimmer, self-fed rip saw, edger, and various other types of saw and filing equipment. Beyond the planing mill is located the boiler house, an extensive building, which is kept spotlessly clean. It is equipped with twenty-four boilers. The blower system from all the sawdust and shavings producing departments feeds these boilers automatically. Cables circulate the sawdust and shavings so that they are fed to the rows of Dutch ovens connected with each boiler. The boiler house is constructed of concrete. Passing from the boiler house to the electric power house, one sees five dry kilns of the latest design, and next comes the large electric shop for maintaining and caring for the electrical appliances.

The Power Plant

In the power house a descent is made to the foot of the falls, where the turbines, generators, and steam auiliary plants are situated. Here the water takes a forty-foot drop and operates the turbines. Two turbines are already working in connection with two electric generators of 1,500 h.p. Another turbine is to be installed, and the plant also has a steam auxiliary. In the condenser house further means of fire protection is installed in the form of a Worthington pump which is capable of pumping one thousand gallons a minute.

Next, one comes to the Hardwood Flooring factory, located near an extensive shed in which all kinds of dressed lumber are stored. In this plant every variety of first-class flooring is produced.

Another large section of the plant is the box factory, where all sizes and shapes of box shooks are produced. The equipment of this plant includes printing presses for marking boxes with the purchaser's label. Over eighty men are employed in the box factory alone. Recently, a large bright and commodious building has been added to the group, to be used as a cutting-up mill. The lumber enters this mill in the rough and is cut into the various sizes required for the box factory and the sash and door factory.

One of the most interesting features of the whole plant is the extensive stabling equipment, which provides accommodation on its two floors for almost one hundred horses. On the top floor of the model stable, a special feed for horses is manufactured from cut hay, crushed oats, and molasses.

A short distance from the stables are located the machine shops, the blacksmith shop and forge, and carpenters' shop. These are all situated on what is known as Green Island. On this, the Ottawa side of the Rideau River is located the saw mill, where the logs are brought to be converted into lumber, and hauled to the various lumber yards surrounding the mill and piled ready for shipment.

Canadian Forestry Convention Postponed Indefinitely

Owing to the war, the president and directors of the Canadian Forestry Association have decided to cancel the arrangements for the forestry convention which was to be held in Halifax, September 1 to 4, 1914, and to postpone the convention indefinitely. The situation is such, that it is felt to be best to leave the matter open and to state that whatever it is decided to do in the future, due notice will be given to the members and all others concerned. All railway arrangements as published have been cancelled and anyone going to Halifax within the stated dates will have to pay full fare back to starting point.

Modern Logging Methods in Ontario

Felling a Pine near Trout Creek, Ont.

The accompanying illustrations give an excellent idea of the logging operations carried on in connection with a mixed stand of hardwod and softwood in Northern Ontario. The location of these operations is a few miles out of Trout Creek, Ont., where the Trout Creek Logging Company are taking out logs for the Ballantyne Lumber Company, Trussler Bros., Limited, and the Dominion Wood and Lumber Company, all of which have offices in Trout Creek. One of the illustrations shows a crew which has commenced work upon the felling of a typical pine tree on these limits which contain an excellent stand of high grade pine.

A very interesting illustration is one showing the method of loading from a skidway on to a car running upon the logging track which the company have built into the limits from Trout Creek. The loading of the car is effected by means of a loader operated by an engine consuming coal oil. This engine has a capacity of 4 h.p. and is started with gasoline, after which coal oil is used. The engine was made by The Fairbanks-Morse Company, and the loading device was made by Woodside Bros., Port Arthur, Ont. This device consists of an arm hoist operated by a cable and drum, a chain and a sprocket wheel on the engine are attached to a small sprocket on the drum. The hoist arm lifts the load from the skidway and deposits it upon the car. As soon as the log is hoisted a trip comes into action, releasing the log and leaving the arm free to be returned to the skidway for another log. The company own an equipment of Russell logging cars which are used for this prupose.

Another illustration represents the Heisler Logging Locomotive operated by the Trout Creek Logging Company drawing two cars of logs out of the woods to the plant at Trout Creek. At Trout Creek, these logs are dumped into a log pond which is kept open during the winter by means of exhaust steam from the plant.

After the timber for the saw mill has been removed from a portion of the limits, gangs of Italian workmen are sent into the bush to remove the cordwood. This is loaded on to the cars and is brought out and piled at the chemical plant, to be manufactured into different products, such as charcoal, alcohol and acetate of lime.

Object to Vancouver Harbor Rates

Lumbering interests of Vancouver, B.C., appeared before the harbor commission recently to protest against the schedule of rates that has been announced. This is Vancouver's first harbor commission, it being a federal appointive body to look after the harbor, which has been made a free port. The object of the charges is to make the harbor at least part sustaining and the schedule includes charges that apply to everything for which the harbor is used. The lumbermen are not the only persons protesting, but, in the end it is believed that the charges will prevail without a great deal of modification. They have been based on charges in other ports and will be made as equitable as possible under the circumstances. The lumbermen made the claim that they can not submit to more charges and remain in business. It was pointed out that operation is very costly, especially in view of present conditions, and the margin of profit is so little that it is hardly good business to run the mills. The additional charges will be the last straw. Although it was not stated before the commission the levy will mean between $8,000 and $9,000 annually to such a plant as the Hastings mill and will be felt especially by the smaller concerns. The discussion was conducted with equanimity on both sides and it is felt that a satisfactory settlement will be reached in the end.

The Importance of Sufficient Power

Editor Canada Lumberman: Westboro, Ont., Aug. 3.

I think there is no subject which requires the attention of the lumber manufacturer to-day, more than the power they use, to drive their machinery.

I will give you my recent experience with a 6-foot band mill. This mill is said, by band mill experts, to be as good as any made. It was driven by a 14-in. x 18-in. engine, running 200 revolutions per minute. The engine drove the jack chain also, which brought in logs to supply the twin circular, siding cants for a gang, along with the logs for the band mill. The jack works were 150 feet long from the mill to the water and had an elevation of about 60 feet. You will see by this that the jacking of the logs used up considerable power, and furthermore caused the power to be variable, as the jack chain was not working all the time. When it was running the speed of the engine was reduced, and, of course, the speed of the band saw in proportion. The speed of the band mill was 10,000 feet per minute, but it did very inferior work, both in quantity and quality. To help matters the speed of the band mill was reduced 1,000 feet per minute, by placing a smaller pulley on the shaft driving the band mill. The change made a great improvement, for, with the same filer and the same saws, more lumber and much better lumber was sawn.

Often the saw fitter is blamed, as in this case, for not fitting the saws properly, when the whole trouble is caused by unsteady power, for there is no saw that will give good results with an unsteady power, especially a 6-foot band mill saw of 16 gauge.

When there are so many band mills in use, as there are to-day, I think the lumbermen should look more carefully into the question of power. A few hundred dollars expended on the power plant in more power than can be figured out to be necessary, will often bring in thousands of dollars after the mill is in operation, for I find that the ratio of power in the modern sawmill has not increased with the ratio of speed, in the last 30 years. The modern mill of to-day is not doing as much work as it would if it had sufficient power to keep the saws running at uniform speed. This letter is written, not from theory, but experience.—I N. Kendall.

Increasing Protection of Vancouver Timber

Further steps towards the protection of the timber on Vancouver Island, where very valuable timber is to be found, are being taken by the forest branch of the British Columbia Department of Lands. The telephone service is being greatly extended and will be not only of value to the department in the summoning of assistance in cases of fires in the timber but in case of accidents in logging camps.

Loading Log by means of an Oil-Burning Loader

Logging Locomotive in use at Trout Creek, Ont.

St. John Exports of Lumber

Exports of lumber and lumber products for the year ending June 30th, 1914, from the American Consular District of St. John, N.B., according to statistics furnished by the American vice-Consul at that point were valued as follows:—

Product	September 1913	December 1913	March 1914	June 1914	Total
Lumber	$259,712.29	$155,058.54	$ 69,102.34	$237,562.37	$721,435.54
Pulp Wood	24,872.54	25,397.50	.....	32,282.36	82,552.40
Wood Pulp	62,812.44	105,097.56	94,527.53	151,206.25	413,643.78
Laths	52,094.61	65,354.23	16,108.93	80,403.35	213,961.12
Ships' Knees	348.50	948.15	.....	594.55	1,891.20
Pine Boards	2,717.59	10,773.44	1,192.33	4,592.12	19,275.48
Telegraph Poles	2,067.30	.....	.....	.....	2,067.30
Shingles	.....	6,748.50	9,237.14	15,754.31	31,739.95
Staves	1,022.13	.....	2,408.04	.....	3,430.17
Track Ties	.....	762.32	2,679,64	9,114.02	12,555.98
Total	$405,647.40	$370,140.24	$195,255.95	$531,509.33	$1,502,552.92
During the preceding year the totals were as follows:					
Total	$689,914.82	$484,975.28	$297,539.34	$453,132.61	$1,925,562.05

New Lumber Company Located in Windsor, Ont.

The Windsor Lumber Company is a new firm which is making rapid progress and is helping to make Windsor, Ont., a greater and more prosperous city. The yard takes in six acres, well situated for convenience. The company have 600 feet of railroad siding, giving them 1200 feet of poling space where materials can be easily and quickly unloaded from the cars. A splendid shed is located in the yard for storing materials, and is arranged for efficient service. Selections can be made from the shed without delay, for good service is the chief aim of the company.

A modern mill will be erected, in which will be installed the most modern machinery driven by individual motors, as soon as the Hydro system is in use, which will supply them with the necessary power. In the meanwhile, they have the call on four of the largest mills in Canada, one of which is in Essex county.

The company are seeing their business grow each day. They have just received the contract for all materials in their line that will be used on the new Wyandotte Street School, that will cost approximately $79,000; also the new three-storey Michigan Central Hotel, a modern structure which is now being built near the Tunnel Station.

Mr. "Jim" Scofield, the manager, is a product of Canada. He was born in the thriving town of Woodstock, and following the natural tendency of his father before him he "broke into the lumber business while still a boy, and has made this calling his life study. After going through the minor details of the business, he branched out and went to Pittsburg, where he associated himself with the widely-known Paine Lumber Company, manufacturers of veneered doors and interior finish. Through his early training and keen foresight he soon gained a substantial footing with this company, spending six years at Pittsburg as manager of their jobbing house, and four years as branch manager of their Detroit office, where he looked after the entire Canadian end of their business. Severing his pleasant relations with that company he became manager and part owner of the Windsor Lumber Company.

There are very few men who enjoy the distinction of having as many friends throughout the country as Mr. Scofield. Since becoming a fixture in Windsor the power of his personality has been felt by all who have come in contact with him. He possesses that valuable trait in busy men of being an optimist. Mr. Scofield is an active member of the Windsor Board of Trade and a valued member of the Builders' Exchange.

J. R. Eaton & Sons' Fine New Plant

J. R. Eaton & Sons, Orillia, Ont., whose planing mill was destroyed by fire last year, have under construction a modern and up-to-date factory building, which when completed will be fully equipped to take care of their large trade in flooring, doors, and all kinds of interior finish.

The main building of the new plant is 151 x 304 feet, one storey high, full mill construction, with boiler and engine room and dry kilns attached. The walls of the main building are being built of Denison

New Plant of J. R. Eaton & Sons, Orillia, Ont.

Interlocking Tile, manufactured by the Sun Brick Company, Limited, of Toronto. This material was chosen as being specially suitable for a building of this nature. It makes a light wall, a cool building in the summer, a warm one in cold weather, and an absolutely dry one. It is of fireproof construction and above all has a first-class appearance.

A new feature in this building is the chimney stack built by the Alphons Custodis Chimney Construction Company, of New York, whose Canadian office is in the Confederation Life Building, Toronto.

Canada's Exports and Imports of Wood Goods

Canada's exports of forest products during the twelve months ending with April 30th, 1914, were valued at $42,797,161. During the years 1913, 1912, 1911, the values were respectively as follows:—$43,646,733, $40,717,190, $45,191,680.

The imports of wood and manufactures of wood during the twelve months ending April, 1914, were valued at $23,215,024. During 1913 the value was $28,398,740.

The exports of wood and manufactures of wood from Canada during the twelve months ending April, 1914, and during the corresponding period in the previous year were as follows:—

	1913	12 months ending April total	to U. K.	to U. S.
Lumber—Deals, pine	1,395,255	1,390,086	1,311,401	53,918
Deals, spruce and other	5,581,499	6,466,999	5,874,926	501,150
Laths, palings and pickets	2,038,933	1,895,812	23,905	1,839,107
Planks and boards	20,904,269	19,531,256	1,771,042	15,253,654
Shingles	1,447,196	1,878,914	2,577	1,842,816
Timber, square	1,343,648	540,175	510,606	12,995
Wood blocks for pulp	6,950,094	7,422,409	.....	7,422,409
Wood Pulp	5,561,518	6,442,579	1,217,438	4,973,327
Wood and mfrs. of—Total	50,071,626	50,068,250	12,035,250	34,514,044

A New Lumber Company at Windsor, Ont.—Yard and Shed of the Windsor Lumber Company

The Pulpwood Industry in New Ontario

Timber Resources the Backbone of Northland's Future Prosperity—Great Opportunities Waiting for the Arrival of the Railroads

By Horace A. Bell

IF New Ontario is to be developed as rapidly and as successfully as its well-wishers desire, it will undoubtedly be through the pulp-wood industry that this end is achieved. When the project of converting these vast tracts of forest into agriculaural land was first taken up the glamor and excitement which attended the discovery of silver in Cobalt, and gold in Porcupine, did much to make the general public overlook the potentialities of the timber resources of this new portion of the province. They were more interested in the minerals which prospectors were disclosing beneath the soil than in the wealth which was apparent on the surface. The fortunes which were being made from a few blows of the pick appealed to them more than did the possible revenues from the timber lands when transportation facilities should provide the necessary market.

However, although the mines of the North served a useful purpose in advertising the possibilities of the area which the Ontario Government were seeking to develop, the fact should not be forgotten that when Cobalt and Porcupine have ceased to exist, the pulp-wood which exists in such abundance over the whole of the Clay Belt, will be bringing in a considerable revenue to the provincial exchequer. The exploitation of the pulpwood will be the means of enabling the settler to clear his homestead profitably, and convert his holding, as the Government desires, into a paying farm.

Whilst the attitude of the average citizen in this matter may have been one of more or less indifference, the importance of the subject from the outset has been by no means lost sight of by the wealthy lumber interests of Canada and the United States. As soon as the cutting of the right-of-way of the Transcontinental Railway made the adjacent townships accessible, these concerns had men out travelling the bush searching for those areas where the timber was most suitable and most abundant, and for locations for mills where the material could be most profitably marketed.

Although only a few of the schemes which these men set out to investigate have actually materialized, with the possibility of a few others being consummated at a later date, the reports turned in were invariably laudatory of the excellence of the pulpwood throughout the whole area. It was a case of

"How happy I could be with either
"Were the other fair charmer away."

Waiting For the Railways

There are millions of acres of the finest spruce and balsam to be found in any part of the province right within easy access of the Transcontinental Railway; but, until that great Government undertaking is finally opened up, those who may have the erection of mills in contemplation are hardly likely to complete their plans, or attempt to instal their plant. Contractors' trains are all very well in their way but they afford neither the service nor the rates conducive to the profitable working of so costly an equipment as that of a pulp mill.

Although the construction of the Transcontinental Railway has done much for the encouragement of the pulpwood industry in Northern Ontario, and new mills are likely to be started, even if branch lines are not established in the near future, it is the opinion of many people competent to judge that the truly ideal site for a pulp mill will not be accessible until the Timiskaimng and Northern Ontario Railway is extended to James' Bay. This site would be at some spot on the Moose River a hundred miles north, more or less, of the Transcontinental Railway.

All the rivers north of the Height of Land flow northward and converge practically at one point. Amongst the more important of these waterways are the Abitibi, the Frederickhouse, the Driftwood, the Mattagami, the Ground Hog, the Kapuskasing, and the Opasatika. A number of smaller streams flow into these larger rivers, in fact the railway west of Cochrane crosses large and small streams at very frequent intervals. In the vicinity of these rivers there is an abundance of pulpwood which could be floated down at a practically nominal expense to the mill, erected where the rivers converge.

Moose River an Important Factor

The freight charges on pulpwood shipped from the Cochrane district to the mills in Northern New York amount to eight dollars a cord, whilst the freight to the mills at Thorold is $6.50 per cord. It is claimed that logs could be driven down the rivers to a mill on the Moose River at a cost of a few cents a cord. As against this there would be the extra cost for hauling the manufactured pulp the extra distance from the mill to Cochrane but this would be infinitesimal when compared with the cost of shipping the raw material to the old-established mills of the continent.

Even under present conditions the establishment of supply and other camps could be very easily carried out in locations of about a day's journey from the railroad, so that the men and the officials would be in fairly intimate touch with the outside world. In this connection it is interesting to note how camps, which a few years ago were isolated from the outside world, have been brought, through the instrumentality of the railways, almost into the midst of civilization itself. In regions where ten or twelve years ago mail was received once or twice a month at the most, it comes to hand at least once a week, and in many cases more frequently.

One great advantage which a mill on the Moose River would have would be that settlers would be able to haul the logs, which they have cut in the process of clearing their land, down to the rivers in the winter time, and have them floated down to the mill when the ice goes out in the spring. With so many rivers flowing northward to the one central point the settler whose land was not in the immediate vicinity of a river would in no case have a very long haul to deposit his logs upon the ice. The complaint of the homesteader along the Transcontinental Railway hitherto has been that the Abitibi Pulp & Paper Mills have been established south of the railway. There is a market for their pulpwood there, but the only way to get it to those mills is by rail, and when the freight charges of the railroad contractors have been paid there is not much left for the settler himself.

An Inexhaustible Supply

It does not require an eypert to say that the pulpwood supply which could be sent to a Moose River mill is practically inexhaustible. This is obvious to any one who has travelled over the Transcontinental Railway for any distance west of Cochrane. However, until the construction of a line to James' Bay has been definitely decided upon, the Moose River Mill scheme must remain very much in the air.

Although this is considered an ideal location there are many others admirably adapted for pulp mill purposes.

The industry is merely in its initial stages at the present time. The advantages which the country offers for the profitable manufacture of pulp are manifold. With so many important rivers within a few miles of each other the question of power is solved at the very outset. The supply of the raw material is, as has already been said, almost inexhaustible; whilst the question of transportation, when the railway is opened for traffic, should no longer hinder those interested in the business from establishing their plants.

The firm to whom the credit must be given for first embarking upon an enterprise in connection with the lumber business, upon an extensive scale, in the newest North, is Messrs. Jackson & Tindle, of Buffalo, who formed the New Ontario Colonization Company, and acquired the townships of Kendry and Haggart, and now have large saw and planing mills in operation at Jacksonboro, on the Mattagami River, thirty-two miles west of Cochrane. It was at Christmas, 1911, that they first sent their representatives up to explore the bush at the point where the Transcontinental Railway crosses the Mattagami River, and so favorable was the report sent in that the following spring the purchase of the townships from the Government was carried through. Although a pulp mill is not part of their scheme, they are shipping considerable quantities across the border, and this portion of their business, is likely to be largely increased when the opening of the railway affords greater facilities.

It was not long after Messrs. Jackson & Tindle had established themselves at Jacksonboro that the announcement was made that big pulp and paper mills were to be erected at Iroquois Falls, a few miles from the main line of the T. & N. O. Railway, by the Abitibi Pulp & Paper Company. Work upon this undertaking, which easily ranks as the biggest enterprise in the North Country, has been in progress for many months, and at the time of writing, the works have just been put into actual operation.

Wealthy Syndicates Spying the Land

Although these are the only concerns at the preesnt time engaged in the pulpwood industry in the new district, it is known that other wealthy syndicates are casting longing eyes on the vast timber areas of the district; and the announcement of an enterprise even more ambitious than that of the Abitibi Pulp & Paper Company has recently been made. The most profound secrecy was maintained in regard to this scheme, and although several men were away in the bush for the syndicate all last winter, they observed a discreet silence when approached on the subject of the intentions of their principals. The ubiquitous newspaper man was unable to "draw" them in any particular.

In spite of every precaution, however, certain details leaked out in various ways which can be banked upon as correct, and it is now

officially announced that the mills will be located at Smooth Rock Falls, about three miles from Jacksonboro, and that both pulp and paper will be manufactured on the spot. Indeed, engineers have been engaged in running a line for a spur into Smooth Rock from the Transcontinental Railway. It is known, too, that the representatives of the concern have been securing all the available veteran grants in the vicinity, and these together with the land over which they have secured from the Government the right to cut pulpwood will amount to 21 townships at least. It is also said on very good authority that about twelve hundred men will be permanently employed on the works and in the bush. Mr. Duncan Chisholm of Toronto is the chief representative of the new undertaking.

As we said at the outset of this article, the rapid development of the North Country is largely dependent upon the industries which the wealth of its timber resources will create. The mines are only an incidental and temporary aid. It is as an agricultural area that its ultimate success will be assured; and it is the timber which will enable the settlers to convert the district from virgin forest to fertile farm land.

The Homesteader's Position

The average homesteader is not over-burdened with capital; and the only way in which he can obtain some measure of return for the time and labor which he devotes to the clearing of his holding is by finding a market for his pulpwood. Under the most favorable conditions it must take three or four years for him to clear sufficient of his land to render it capable of producing a crop which would bring in sufficient money to maintain himself and family in the most humble manner; and it is imperative that he should have some means of securing an income, however small, during the time he is getting his homestead in readiness for a crop. The establishment of pulp mills will help him to solve the difficulty, and although he claims the prices at present offered him for his pulpwood are by no means an adequate return for the labor he has spent upon it, he is better off by selling it at a very small margin of profit than by burning it as he cuts it.

Great Britain's Imports of Timber

Great Britain's imports of timber during the first five months of the current year are approximately $6,665,940 less than during the corresponding period of 1913. All descriptions of wood, with the exception of mahogany, show a marked decline, as will be observed from the following analysis:—

	Loads	Value £	
Hewn	112,570	564,539	(decrease)
Pitprops	127,324	175,379	(decrease)
Sawn	340,496	1,205,897	(decrease)
Staves	12,204	72,673	(decrease)
Mahogany	36,510	288,058	(increase)
Unenumerated	15,496	41,245	(increase)

The decline of imports from Canada is: hewn, £10,940; and sawn or split, planed or dressed, £122,260.

Great Britain's imports of manufactured wood, i.e., furniture and cabinet ware, house frames, fittings and joiners' work, woodware and wood turnery decreased in value £164,846.

Proposed Canal Toll Will Affect Lumber Trade

In the opinion of Captain Robert Dollar, one of the most prominent ship owners of the Pacific Coast, the present controversy between shipping men and President Wilson of the United States in regard to taxing owners and charterers for deck load cargoes of lumber through the Panama Canal, will greatly affect the province of British Columbia, whose resources of timber are so abundant.

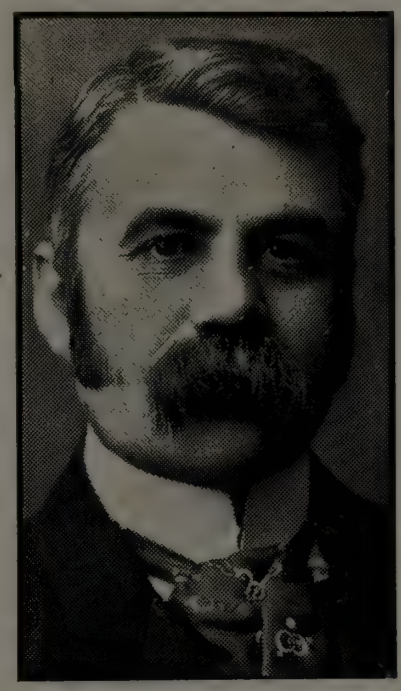
"The ship owners pay tax upon the tonnage of their ships, and it does not seem right to us that lumber—the only cargo which is carried on deck to any extent—should be imposed upon by an extra charge," said Captain Dollar in an interview.

"At least one-fifth of a ship's cargo of lumber is carried on deck, and it is not fair that lumber carriers should be made the particular object of this ruling. British Columbia's future depends greatly on the lumber business, and, should President Wilson decide against the owners of vessels in this matter and charge for deck loads passing through the canal, the effect is evident. The business through the canal will be big when it opens. We ourselves intend to send all our ships through, and are here to handle a large amount of the lumber business with the eleven ships which we own and which are registered and operated from the port of Victoria. I wrote to President Wilson that I could not see why extra for deck loads should be paid, so long as I paid my full tonnage, for it makes no difference on other ships whether they carry feathers or pig iron."

Captain Dollar has taken this matter up with the Chamber of Commerce at San Francisco and at other Pacific Coast points, and these bodies are with him and the ship owners in the fight for this privilege. Captain Dollar expects to win, and is anxiously waiting for a reply from the Chief Executive of the United States. The cargo of lumber on the steamer Robert Dollar, of course, has not gone through the Canal, as was originally intended, but it is certain that all the remaining cargoes will do so, commencing next year.

Captain Dollar has been at Genoa Bay, B.C., on business with regard to the contract to carry 25,000,000 feet of lumber from Vancouver Island to Toronto, via New London, Conn., where it is to be loaded on to trains. The steamer Robert Dollar has already left Genoa Bay with the first cargo of 5,000,000 feet. This is the largest cargo of lumber ever carried from the west coast of America to the East in a ship, according to Captain Dollar.

Sudden Death of Hugh Scott Brennen



The late Hugh S. Brennen

The sudden death of Mr. Hugh S. Brenner, senior member of the firm of M. Brennen & Sons, Hamilton, Ont., came as a great shock to his many friends in the lumber industry. Mr. Brennen was found dead in his bed at the Brant House. Burlington, Ont., on July 31st. He had been spending the summer with his wife and family at the Brant House and had been in his office in Hamilton on the day previous. He was apparently in excellent health and it is stated that death was the result of appoplexy.

The late Mr. Hugh Scott Brennen was the second son of the late M. Brennen, founder of the lumber firm which bears his name. He was born in Hamilton and was educated there and at the University of Toronto, from which he graduated in 1880. He immediately enterd his father's office to assist in the management of his rapidly increasing business. On the death of Mr. M. Brennen, Mr. Hugh S. Brennen and his brothers succeeded to the business.

The late Mr. Brennen took an active interest in the welfare of the City of Hamilton, devoting his attention especially to educational matters. He was a member of the Board of Education for twenty-six years, and served as chairman for one term. He was an active church worker, giving much of his time to the affairs of Knox church, on the Board of Managers of which he served one term. Of late he had been associated with the affairs of St. Paul's church. His interest extended also to philanthropic work, to which he gave much of his attention and means. Mr. Brennen was well-known in fraternal circles, having been connected for many years with the A. F. & A. M. He was Past-master of Temple Lodge. He was also a member of Scottish Rites bodies of the order, and a member of the A. O. U. W.

He is survived by Mrs. Brennen, who is a daughter of the Rev. Dr. A. B. Simpson, of New York, a former pastor of Knox Church, Hamilton, and by two daughters, five brothers and two sisters.

Belleville Lumberman's Death

Mr. Harry Pringle, one of Belleville's prominent citizens, died recently after an extended illness, at the age of 56 years. He was prominent in political, social, church, and educational matters. He was twice the Liberal candidate for Legislature honors in West Hastings, was for years a member of the Board of Education, Past Grand Master for the Masonic Fraternity for the city, a member of the Senate of Albert College, and a member of the official board of Bridge-Steet Methodist Church. Mr. Pringle was the head of the Pringle Lumber Company, of Belleville. A wife and one daughter, Mrs. Rev. Bruce Hunter, survive.

Quebec Cullers Report

The following comparative statement of timber, measured and culled to date is furnished by the Supervisor of Cullers' office, Quebec, under date of August 6.

	1912. Cubic Feet	1913 Cubic Feet	1914 Cubic Feet
Waney White Pine	685,320	213,920	481,560
White Pine	80	7,560	.....
Red Pine	1,320	960	1,040
Oak	10,280	105,920	290,280
Elm	274,880	194,000	299,280
Ash	120	1.000	680
Birch and Maple	38,640	47,680	50,800

Pioneer New Brunswick Manufacturers

The New Addition at Fredericton to the Sawmills Operated by Fraser Limited—Modern Lumber, Shingle and Lath Producing Plants

By Don. A. McDonald and R. B. Miller, M. A., M. F.

THE firm name of D. Fraser & Sons, now Fraser, Limited, has long been identified with the lumbering interests in New Brunswick and is synonymous with square dealing, solidity and a progressive spirit. Donald Fraser, Senior, with whom are now assosiated his sons, Archie and Donald Fraser, Junior, is one of the pioneer lumbermen of New Brunswick and he is proud of the fact that his apprenticeship began in the woods, when as a young man, without capital, he first came to this country and began at the bottom. To this fact can be attributed, not only an intimate knowledge of all phases of the business, but the experience and sympathy in handling labor, which has made the firm name known in the remotest regions of New Brunswick and Quebec.

Beginning of the Business

With his early savings, Donald Fraser, Senior, began contract sawing and started a mill at River de Chute, later building the Aberdeen mills just above the city of Fredericton, which were burned about 1901, after successful operation for twenty years. The Frasers then turned their attention to mills at Plaster Rock, N.B., and Cabano, Quebec. They have also established mills and stores at Edmundston, N.B., at Baker Brook and elsewhere. Their holdings comprise private lands in both the provinces of New Brunswick and Quebec, Lands are under lease from both provinces and from the New Brunswick Land Company. "Bank" logs are also purchased from farmers all along the St. John River to supply the Victoria Mills, at Fredericton. The latter mill is further stocked from the lands originally owned by the Scott Lumber Company, which were cruised and purchased by Fraser, Limited, in 1912. This mill, known formerly as the Scott mill, was located about a quarter of a mile below the Phoenix mills and a half mile below the city of Fredericton. Since its acquirement the mill has been entirely remodelled and equipped with the most modern machinery for manufacturing lumber, lath and shingles, while a planing mill and box factory have recently been added, making it one of the most modern mills on the St. John River. For this reason it is especially interesting to forestry students and was selected as the subject of a milling report for Seniors in Forestry in the University of New Brunswick last year. Visits to this mill, have given them an idea of the best and most up-to-date machinery for manufacturing lumber, with the least amount of waste. Around this mill has sprung up a little community known as Victoriaville, just below Morrison's, on the C. P. R. and Valley Railways, and the future will probably witness many changes in this locality inaugurated by the firm for the welfare of their employees and the upbuilding of this little manufacturing centre.

In the scope of this article, a detailed history of the growth and changes wrought by Fraser, Limited, at all their different mills, would be impossible. The business which has sprung up at Cabano, Quebec, might be taken as fairly typical of what has been accomplished in other localities by this firm.

Thoroughness and Enterprise

Starting at St. Rose station, on the Temiscouta Railway, you can portage to Big Squattuck Lake, and at the head of this lake, or a brook coming into it, you will find the first logs which are to feed the Fraser mills at Cabano, Quebec. Through this chain of lakes, bordered by a finely timbered region, you can travel by canoe through Touladi River and Touladi Lakes, a distance of 90 miles, before you come into Lake Madawaska—and through all this distance you are impressed with the Fraser thoroughness and the Fraser enterprise which guides these logs unerringly, through dams and rafting works, to their final destination—the saw and the manufactured produce. If you wish a further trip, you can travel down the beautiful Lake Madawaska, through the quiet stretches of Madawaska river until you reach the town of Edmunston and another Fraser mill, just above the entrance of that river into the St. John. If you are short of grub on this trip, you can be assured that at any of the Fraser stores where you stop you can get the best which the market affords and receive the most courteous attention, with advice as to portages and camping sites. This has been made possible, not in a few years or by slight effort, but as the result of a lifetime's application of careful and conservative business methods in this region.

The company now have beautiful and commodious offices in the Royal Bank building, at Fredericton, and from here the main business is conducted. The members of this firm are modest men who do not seek publicity, so that facts concerning the upbuilding and growth of their business must be secured largely from outside sources. They are further, busy men, and not always easily found, since they must travel extensively to look after their interests at their various mills. Many of their employees have been in the service of the company for years and are trusted largely to supervise their share of its interests and the loyalty and devotion of these men who have grown gray in their service speaks most eloquently of Fraser honesty and the Fraser spirit.

The following report of the Victoria Mill, at Fredericton, was written in the fall of 1913 by Don A. McDonald, a Senior in Forestry in the University of New Brunswick, following an outline used for lumbering reports suggested by Prof. R. C. Bryant, professor of lumbering in Yale University. The difficulty encountered by inexperienced men, unfamiliar with mills and milling machinery, can well be imagined, even the practical mill man would find it no easy task to write a milling report. In the report, the writer is greatly indebted to the manager of the mill, Mr. William H. Glenn, for information furnished, and for explanation of machinery. Mr. Glenn, before being selected as manager of the Victoria Mills by the Frasers, was for several years in the employ of Randolph & Baker, as a scaler and cruiser and in the office and the booms of the St. John River Log Driving Company. He knows from experience just what logs with various defects should saw out, and having acquired intimacy with the mill end of the business and a familiarity with the Fraser methods, is one of the most efficient managers the company could secure.

The Victoriaville Plant

The plant of Fraser Limited, at Victoriaville, is equipped with the most modern machinery available and includes a sawmill, shingle mill and lath mill. A planing mill is also being erected. Operations were commenced during the summer of 1913, the principal species of timber being spruce, cedar, hemlock, fir and a small amount of pine. Like nearly every other large operation in eastern Canada the sawing season for this company begins in May, when the ice in the river breaks up and logs can be obtained. Sawing continues throughout the summer and until the river freezes, which generally occurs sometime in November. In order to make sure of commencing operations early in the spring, a supply of logs is obtained by skidding from the

Victoria Mills, Fredericton, N. B.

The Log Pond, Victoria Mills, Fredericton, N. B.

pond to the bank by means of a steam donkey and a drum. Then the logs are piled up by a steam derrick, sufficient being provided in this manner to keep the mill operating from the time when it is started in the spring until the first logs from along the river can be sorted and run into the pond. For securing its regular supply of logs, the company is very conveniently situated near the booms of the St. John Log Driving Company whence logs can be obtained with little delay. Most of the logs used are known as "bank logs" taken out by farmers along the river.

The situation of the sawmill is not only convenient from the point of view of securing the logs, but also from the point of view of shipping the finished product. Short spurs of railway connect the yard with the C. P. R. and the St. John Valley Railway. Shipment may also be made in vessels or scows to St. John as the river is navigable up to this point for vessels of ordinary draft.

The log pond, situated along the bank of the river is 1½ miles miles long and 200 yards wide. The usual booming and log elevating equipment is installed. When the logs enter the mill they are carried by live rolls to a cut-off saw rising up through the floor which cuts them into the proper lengths. The log deck which receives the logs when they enter the mill is 25 ft. long. The log elevator, live rolls and electric kickers are all controlled by levers operated by an employee who stands at the head of the elevator. Three log stops, operated independently of each other by floor trips prevent the logs from rolling off the inclined deck.

The next bit of equipment is the log carriage, which is 24 ft. long and 68 ins. wide. It is furnished with the latest equipment in the way of head blocks, knees, dogs, and ratchet set works. Two men upon the carriage operate the dogs which hold the log in place, and one of the men also sets the knees by means of a lever. The carriage is operated by gun-shot feed having a steam cylinder 40 ft. long and 12 ins. in diameter with a piston valve at each end. The sawyer controls the steam by lever.

The main band saw is a Simonds double-cutting band 45 ft. long and 12 ins. wide of 10-in. gauge and cutting a kerf of ⅛-in. This saw is capable of cutting 30,000 board feet of lumber at one filing and is changed twice daily. The band mill was furnished by the Waterous Engine Works Company, Limited, Brantford, Ont. The output of this mill is 60,000 to 80,000 board feet per day of 10 hours. In order to keep the plant running without interruption an equipment of six of these double-cutting band saws is kept on hand.

When operations were first commenced at this plant, it was equipped with a Mershon shingle vertical resaw. Deals coming from the main band saw can be passed through this and cut into 1-in. boards. During the spring of 1914 this resaw was replaced by a Mershon twin Saginaw band resaw. A full description of this was published in the Canada Lumberman of May 15th.

The mill is equipped with two edgers, each consisting of three movable circular saws 22 ins. in diameter, 8 gauge, cutting kerf of 3-16 in. These saws are vertically hung, and the distance between them may be changed to suit the width of the board.

The trimmer equipment consists of two circular saws 20 ins. in diameter, 10 gauge, cutting a kerf of 7-16 in. and operating at 1,500 r.p.m.

On leaving the trimmer the stock is carried by transfer chains to the sorting table outside the mill. This consists of a wooden platform 200 ft. long and 50 ft. wide, where the boards and English deals are sorted. Each size and quality is taken from the table and placed on trucks or wagons to be hauled to the yard. A crew of ten men, also one double team and three single teams are employed in moving stocks to the yard. The main yard has an area of 1½ acres and the average haul is about 500 ft. A spur track connects the sorting table with the yard.

Another spur track running alongside the sorting tables makes connection with the C. P. R., so that shipping by rail is greatly facilitated. Easy access is also obtained to the yard by locomotive shunters.

The company arrange their stocks in piles 16 ft. wide, usually from 15 ft. to 30 ft. high, and the piles are stacked with boards instead of regularly cut stakes. A space of 2 ft. is left between the piles, and the road through the pile is 20 ft. wide. On an average, each pile contains about 25,000 board feet. The work of piling is carried on by a crew of from 8 to 10 men.

Fraser Lumber Company's Plant—Plaster Rock, N. B.

Sawdust and Refuse Disposal

As in practically every other mill, an important problem is that of the disposal of sawdust and other refuse. Much of this is used in producing steam.

Slabs, butts, etc., are consumed in a large burner with a stack 95 ft. high and 36 ft. in diameter. A separate brick building houses the power plant and boiler room. This building is close enough to the mill to permit of belt drive from the engine to the mill. Power is supplied by a steam engine of 425 h.p., running at a speed of 150 r.p.m. The boiler equipment consists of 3 boilers of 150 h.p., 5½ ft. x 20 ft. and 2 boiler pumps 6 x 6 x 4. Steam pressure is carried at 125 lbs. per square inch. The boiler accessories consist of one water heater, 3 herring-bone grates, and a stack 100 ft. high. The grate surface in each boiler is 5½ ft. x 7 ft. The fuel consists of sawdust brought to the boiler room by a conveyor from the plant. The mill, blacksmith shop, etc., are lighted by electricity, supplied by a 25 kw. direct-current Edison dynamo driven by an 8-in. x 10-in. double cylinder Westinghouse piston valve steam engine, running at 150 r.p.m. This plant also supplies light for the mill yards. In all, about 150 bulbs of 16 c.p. each are used.

The water supply for the mill is brought direct from the river by a pump, passing into the boiler by way of a heater.

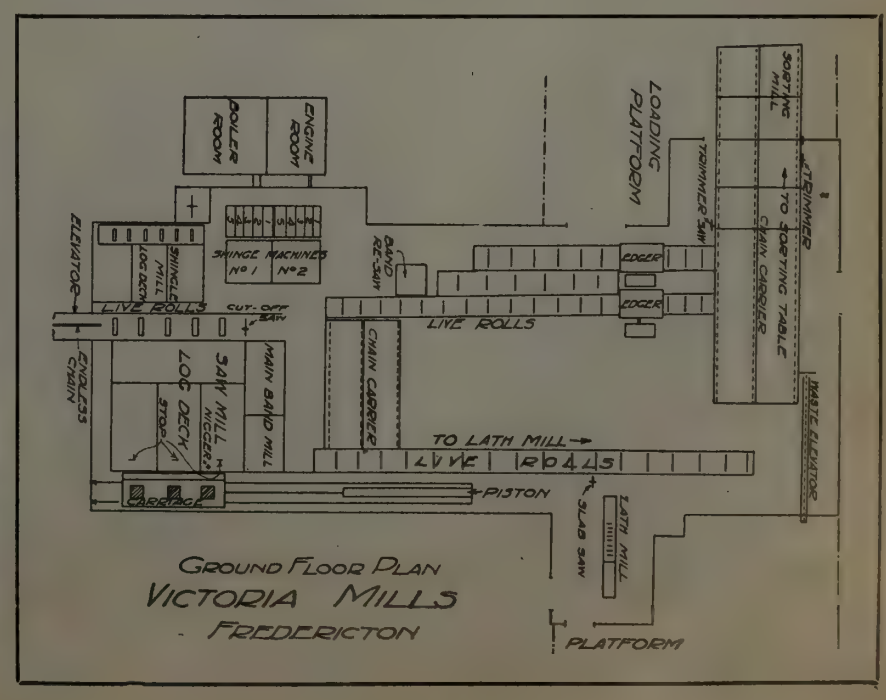
Across the road from the mill is located the blacksmith shop, the equipment of which consists of one forge, 2 anvils, work bench and vise, one set of dies and an upright hand drill. The blacksmith shop is also equipped with electric lights.

The wood working shop is situated on the ground floor of the mill.

Modern Filing Equipment

Particular attention has been paid to the layout of the filing room which is located directly above the main band mill. It has plenty of head room, is well lighted and is laid out and equipped in such a manner as to insure the greatest possible convenience in handling saws. The saws are raised and lowered to and from the filing room through trap doors, by means of a special wrought iron tackle, thus furnishing a very rapid and safe means of getting the saws on and off the mills. The filing equipment consists of one automatic circular saw grinder (Waterous), one Covel scarfing grinder, 2 Covel automatic band saw sharpeners, 1 set of shears, 1 brazing forge and 1 hammering bench. A small 12 h.p. horizontal engine (Leonard) furnishes power for the filing room machinery independently of the sawmill proper. Thus the filing room may be in commission at all times irrespective of the mill itself.

When logs are brought up the elevator and run along the centre of the log deck on live rolls, the cedar logs are thrown to the left and proceed to the shingle machines. Other logs are thrown on the log deck by means of the kicker. The logs which are too long are here cut by means of a cut-off saw having a diameter of 54 ins., gauge 6, kerf 1¼ ins. The log is then rolled down the inclined deck and comes to rest against the log stop. As soon as the log is needed the stop is "tripped" and the log rolls on to the carriage, where it is placed in



position by the "steam nigger" and clamped by the dogs. The double cutting band saw then slabs the log and converts it into deals. From the band saw the deals, or anything larger than two boards in thickness, are carried by live rolls to the resaw and the edger. Then by similar means they are taken to the trimmer and in addition to being trimmed are marked according to their size and grade. Then they pass to the sorting tables for assortment and transfer to the yard. The boards, on leaving the band saw, pass to the edger where wane and defect are removed. From then on, the boards go through the trimming and sorting tables to the yard. Edgings and slabs are dropped on conveyors, pass beneath the slasher saws which cut them into 4 ft. lengths and are then conveyed to the lath machine.

A small office building is located near the mill where the general manager conducts his business. He has under his direction a foreman of each of the different departments and he himself is directly responsible to the company.

According to a statement received from the company, the wages in the sawmill vary from $1.75 per day for pond men and yard men to $2.50 for edgers and teamsters. Sawyers get from $3 to $5 per day. The head filer, whose work is that of an expert upon whom the efficiency of the plant depends, receives a wage which would make an ordinary forester green with envy. For this reason the writer hesitates to state the exact amount.

The Shingle Mill

In the shingle mill, only one species of wood is used, namely northern white cedar. The logs for the shingle mill are conveyed to the log deck by means of an elevator and live rolls and are then kicked to the side opposite the sawmill log deck. They are brought to a halt by a log stop, and a vertical cut-off saw with a diameter of 5 ft., gauge 8, and ⅜-in. kerf converts them into bolts of the required length, which are then conveyed to the shingle machines.

The shingle cutting equipment consists of 2 "Dunbar patent" shingle machines. The shingle bolts are held in place by rolls automatically operated, so that the butt of the shingle is first cut from the bottom of the block and then from the top of the block. A lever beneath the sawyer's foot controls the shingle bolt carriage. The shingle saw is vertically hung and is a circular cross-cut saw 38 in. in diameter, 16 gauge, running at 1,600 r.p.m. This saw is changed twice a day. As each shingle falls from the saw, the sawyer takes it and trims it on the joiner or trimmer saw situated directly in front of him. In trimming the shingles he removes defects and then tosses them into compartments according to their grades. Sawdust and refuse from the shingle saws drop into chutes which dump them upon conveyors for delivery to the furnace room or to the refuse burner.

The joiner or trimmer is a vertically hung rip saw 35 ins. in diameter, 17 gauge, running at 1,400 r.p.m. and is changed once daily.

The shingle grading boxes are located directly in front of the sawyer, and at the lower end of the boxes the shingle bunchers work. The buncher opens a compartment containing a certain grade and proceeds to bunch all the shingles in the compartment. After finishing a grade he takes another compartment. The shingles are bunched in a box 10-in. x 20-in. x 27-in., having hinged end, half open bottom and a moveable upright at each side. First, a binder cleat is placed across the bottom. Then the required number of shingles (250) are placed in the box and another cleat is placed across the top of the bunch at the centre. The two cleats are then tied tightly together with tarred shingle yarn. Completed bunches are removed from the rig and marked with stencils indicating the maker's name and the grade. Each buncher keeps tally of the number of shingles which he bunches. As he is paid by the thousand, an inspector also checks the tally.

Five grades of shingles are made, as follows:—

"Extra" A perfect shingle, clear and free from knots, shakes and stains.

"Clear" A perfect shingle at least 7 ins. from butt.

"2nd Clear" Sound for 5 ins. from butt and may have knots.

"Clear White" Clear of knots for 7 ins. from butt, but having sap.

"Extra No. 1" Sound for 5 ins. from butt with black knots.

The shingles are loaded on cars at the loading platform outside the mill. Those for which there is no immediate market are piled in the lumber yard. The New England States take the bulk of the shingle cut, although the Canadian market is rapidly increasing. The crew employed in the shingle mill consists of 2 sawyers, 2 bunchers, one overseer and 2 helpers. The sawyers receive about 16c per thousand shingles and the bunchers about 12c per thousand. Each machine has a capacity of about 15,000 shingles per day.

The Lath Mill

In the lath mill, only one kind of lath is manufactured and only one grade. This is known as the picket lath. The lath machine is situated about 100 feet ahead of the main band mill in a small ell of the main building. Edgings and slabs from the main band are carried by live rolls and chain carriers to the slasher where they are put into 4 ft. lengths and then pass along to the lath bolting machine. The bolter has a double saw which cuts the slabs into square bolts. These are fed into the lath machine which converts them into picket laths. The laths are then counted, bunched and tied up with tarred yarn, then the ends are trimmed by means of a circular cut-off saw.

Lath edgings are bundled at the same time at the lath and are piled outside of the mill to be sold later for fuel. There is a large demand for these edgings for fuel, but at present much of them are burned in the refuse burner for lack of piling space. The crew employed in the lath mill consists of 4 sawyers, 1 buncher, 2 men who tie the laths, 2 men at the cut-off saw and 2 assistants. Their wages vary from $1.75 to $2.10 per day. Many of the lath are piled in the yard to season, but most of them are shipped immediately by rail to the New England markets. The output is about 25,000 laths per day.

The Cooperage Industry of Canada

By James Innes, Chatham, Ont.

The cooperage industry is one of the oldest in Canada. Its origin was contemporaneous with that of the fur trade, and the shipment of hewn timber to Europe. "Canada butts" and "Quebec Pipes," are trade terms, and while a few of these staves are now made in Canada the old names are still used for shipment from the Southern States.

The late Mr. Eberts, one of the oldest settlers here, has told the writer that, 40 to 50 years ago, McGregor's Creek at Chatham, used to be full of staves every spring, these staves being run down from miles above Chatham, when the spring freshets were on. They were made and hauled to the creek during the winter months. My venerable friend, Mr. Neil Watson, Mayor of Mull, says that every winter, when he was a boy, one of his occupations was to drive loads of pipe staves from Mull to the Rond Eau to be loaded on schooners for Quebec. It is also asserted that schooner cargoes of staves for butts, pipes and hogsheads, were shipped direct to Europe from Chatham.

These were all tight barrel staves, and this industry is now almost a thing of the past, practically the whole of the staves, hoops and heading now manufactured in Canada being for the slack barrel trade; that is, for barrels not intended to hold liquids, but for flour, sugar, apples, salt, lime, cement, etc.

In former years, slack barrel staves and heading used to be made the same as rived tight barrel staves and heading are made now. First the logs were cut into bolt lengths, then a froe was used to split the bolt the proper thickness for staves or heading, the draw knife was then used to reduce to even thickness, the heading finished for rounding, while an inshave and outshave knife was used to put the circle on the staves. This work is now done on tight barrel staves with a steam bucker, but slack barrel staves are cut with a stave knife from the bolts after steaming, while the heading boards are sawn with a swing circular saw, kiln dried and planed on a steam planer, and turned on a steam heading turner.

While $1.00 per barrel was paid for making a flour barrel in the old way, they are now made by the coopers at from six to seven cents each; and if all the barrels used in Canada to-day, had to be made in the old way, more coopers would be required than for almost any industry outside of the Agriculture and Transportation.

Fifty years ago, oak was used almost exclusively for all kinds of barrels. Now, oak is used for tight barrels only, and in addition to oak, elm, basswood, ash and beech are used for barrels to hold liquids. For slack barrel stock, elm is now the favorite wood for staves, but millions of staves are made annually from birch, beech, maple, ash, spruce and basswood.

For heading, basswood, maple, birch, spruce, balsam and in fact most native woods are used. For flour barrels, basswood is the favorite, and is also preferred to any other wood for most purposes, but it is getting so scarce and the price has advanced so, that other woods are taking its place. Elm is used exclusively for patent coiled hoops, but millions of half-round hoops made from saplings are also used. Second growth hickory, maple, chestnut, birch and other woods are answering the purpose.

Production of cooperage stock in Canada has decreased as the forests have vanished. The manufacture of tight barrel stock from Canadian woods (oak, ash and elm), is almost a thing of the past, and while 25 years ago, there was a cooperage mill at nearly every railroad station in the counties of Kent, Essex and Lambton, ninety per cent of them are now defunct, or removed to points east and north, where timber is still available. While over 200,000,000 staves were exported from Canada in 1892, in 1913, nearly 8,000,000 staves were imported from the United States (slack barrel staves), while practically the whole of the tight barrel stock consumed was imported. Elm hoops were also imported to some extent, but only a few cars of heading.

Production of slack barrel stock this year will be about ten per cent over that of 1913, so that there will be enough stock made to take care of the home trade and leave a little for export.

Consumption of stock is increasing to some extent, but not in proportion to general business, as a great many substitutes for barrels are being uesd, sometimes to the detriment of the goods, as there is no doubt that the sack is a most unsanitary coveirng for food stuffs,

such as sugar, salt, flour, etc., and sometimes the contents arrive in an uncleanly state, after being exposed to contamination in filthy railroad cars, odors which are only too readily absorbed, and other unsanitary exposure.

It is estimated that thirty to forty millions of staves with hoops and heading to match will be required for apple barrels this year, the barrel being the only package so far discovered that can be uesd successfully and economically to carry apples for export.

There is still a large quantity of timber in Canada available for cooperage material. The industry is a staple one, and, if the reforestry projects so much discussed are put into practical effect, the same as in Norway and Sweden, its future will be assured.

Fire Protection and the Railways

Situation Today Indicates that Governments are Chiefly to Blame Instead of Railways

A discussion of the railway fire situation in Canada, by Mr. Clyde Leavitt, Forester of the Commission of Conservation, was one of the addresses delivered at the recent annual meeting of the Eastern Forestry Association, held at Gorham, N.H. It had been the fashion, in a certain extent, to lay the blame for the continuance of forest fires, upon the railways, Mr. Leavitt said. The blame however, should be laid he believed, upon the governmental authorities having jurisdiction. After outlining and discussing the activities of the Board of Railway Commissioners and The Commission of Conservation in the direction of preventing forest fires, Mr. Leavitt said that the whole aspect of the railway fire situation had changed radically within the past two years, or since the organization of the Fire Inspection Department of the Board. From being a major source of forest fires, the railways gave promise of dropping well down in the list of minor agencies. Not only this, but in many cases the railways were assisting materially in the control of outside fires originating even at a considerable distance from the track.

Mr. Leavitt explained the co-operative system in force between the Conservation Commission, the Board of Railway Commissioners and the Forestry Branches of the Dominion and Provincial Governments. This scheme, he said, had worked out admirably, and its efficiency was steadily increasing. The co-operative idea was also developing rapidly in other directions. There were now in Quebec two co-operative fire protection associations protecting an area of nearly fourteen million acres. In these cases there was not only co-operation between the lumbermen, who were the backbone of the associations, but the Provincial Government also was co-operating by directing the allotment of funds, and also by deputizing the managers, inspectors and rangers of the associations. To a really remarkable extent the various agencies concerned with forest fire protection were now closely knit together for the accomplishment of a common end. The process was still far from complete, but the progress already made rendered the situation decidedly encouraging.

The Disposal of Slash

Referring to the disposal of slash on lands adjacent to railway rights of way, Mr. Leavitt said that, all the railways could do in cleaning up their rights of way would never give adequate protection, as some sparks were sure to fall outside the right-of-way, causing fires which might spread rapidly on adjoining lands. Unfortunately, nowhere in Eastern Canada, was there provision for brush disposal, either on private lands or on Crown timber lands under license from the Provincial Government. The Commission of Conservation and the Canadian Forestry Association were both agitating this general question and, no doubt, in the course of time, some legislative provision would be made. The difficulty however, was very great, not only on account of the natural opposition of lumbering interests, but also on account of the tremendous inertia to be overcome, due to the lack of an actively favorable public sentiment.

In conclusion, Mr. Leavitt said, that in Eastern Canada, a very large percentage of the land was non-agricultural and of value only for timber production. Such lands were still, for the most part, owned by the provincial governments and the right to cut timber was granted by licenses which though renewable from year to year, were practically indefinite in tenure. In both Ontario and Quebec, limit-holders were required to pay the cost of fire protection, in addition to the annual rental fee of so much per square mile, and stumpage dues payable when the timber was cut. Naturally, the limit-holders were chiefly interested in the remaining merchantable timber, and to most of them the protection of young growth on cut-over and burned-over areas was of very minor importance. The result was, as a general rule, that the young growth received only the most perfunctory attention, if any. The provincial governments, especially in Ontario, were still not sufficiently alive to the necessity for protecting young growth, and, as a result, the areas from which the forest revenues must ultimately come, were often without any real fire protection at all. This was a direct and logical result of the license system, coupled with the placing of nearly the whole burden of fire protection upon the limit-holders.

The one encouraging sign at the present time was the apparently strong tendency toward the organization of lumbermen's co-operative associations. This resulted in the protection of young as well as old growth, the provincial government, in the case of Quebec, making an annual grant in consideration of the protection of the young growth.

A Progressive Young Montreal Firm

Among the younger wholesale lumber firms in Montreal which have recently extended their field of operations is the Canada Lumber Sales Company, Limited, with offices in the Dominion Express Biulding. The company specialize in New Brunswick spruce, southern yellow pine, and California redwood, and have recently secured some substantial contracts for railroad ties and timber. A general wholesale business is also transacted. The directors are Messrs. Oscar F. Berthiaume, Arthur P. Beaupre, and J. Henry Poulin. The two latter have been identified for several years with the lumber trade, and their experience should result in steady growth for their company.

Mr. Berthiaume, the president, has business connections with Montreal, but resides at St. Bruno, P.Q., of which place he has been Mayor for several years. He is an enthusiast for good roads, and the district of St. Bruno is particularly well served in this respect.

Mr. Beaupre, the managing director, has been connected with the wholesale and retail lumber trade for 17 years, and has also other business connections in the city.

The sales end of the company's trade is in the hands of Mr. Poulin.

Mr. J. C. Gadoury, secretary-treasurer, is of old French stock, and is the son of Dr. Gadoury, of Berthier, a man identified with the Conservative opposition at Quebec, representing Berthier county there. His energy will help in the advancement of the company.

O. F. Berthiaume, President

A. P. Beaupre, Managing Director

J. H. Poulin, Sales Manager

J. C. Gadoury, Sec.-Treas.

Important Extensions at Bathurst, N.B.

Fine Up-to-Date Planing Mill Erected by Bathurst Lumber Company —Modern Equipment and Splendid Shipping Facilities

One of the most successful lumber manufacturing companies in the province of New Brunswick, a company whose products are now known, not only in the Maritime Provinces, but in many parts of Quebec and Ontario, is the Bathurst Lumber Company, Limited, Bathurst Village, N.B. Under the management of Mr. Angus McLean, the company's business has undergone remarkable expansion during the last few years. About two years ago a definite effort was made to interest the Ontario trade in New Brunswick lumber products and the effort was successful, even beyond the company's anticipations. It seemed rather questionable at first whether the stock could be disposed of in Ontario with the handicap of such a long rail haul. Energetic and business-like methods, however, proved that there was a good opening in Ontario, and a continually growing and profitable business has resulted.

The Bathurst Lumber Company are fortunate in having behind it men who are not content with an ordinary volume of business. They are continually stretching out for new markets and seeking opportunities for the production of new products which will enable them to do a larger and a more varied business. Following this policy, they have recently erected one of the most modern and efficient planing mills to be found in Canada. The planing mill, which is now running and turning out first class work, is located on the main line of the Intercolonial Railway, just outside the lumber yard, with a siding running into the plant. They are thus enabled to handle lumber from cars into the mill and from the mill into cars at the lowest possible cost. The planing mill building is 100 ft. long and 63 ft. wide, and is covered with steel. The equipment includes: 1 60-in. Mershon band resaw, 1 50-in. Mershon band ripsaw, 1 S. A. Woods Company fast matcher, 1 S. A. Woods Company fast double surfacer, 1 Hoyt matcher for hardwoods, and 1 Berlin moulder. Sufficient room has also been provided for two more fast matchers, to be installed later. The capacity of the plant is from 5 to 6 carloads of dressed stock per day.

The Electric Power Equipment

The whole mill is run electrically, each machine having a separate motor. The motors were furnished by the Canadian Crocker-Wheeler Company, Limited, St. Catharines, Ont. The generator for this power plant was made by Allis-Chalmers Company, of Milwaukee, Wis. The sawdust and shavings are blown to the main concrete boiler house eight hundred and eighty feet distant, where the power is developed. A modern blower system has been installed and is the latest improved thing in its line. The pipe line for the shavings and sawdust is said to be one of the longest in the world, used for this purpose. This new dressing plant puts the Bathurst Lumber Company in a position to give the best service possible and is along correct lines for economy as it is now a recognized fact that lumber should be dried properly at the mill where it is produced, and also finished to suit the job it is intended for, at the point of production, thereby saving all possible extra handling and freights.

The Bathurst Lumber Company are also operating the large Nepisiguit Lumber Company mill, which is now sawing lumber and shingles. This plant has been entirely remodelled and is now equipped with 10 Dunbar shingle mills, 1 Clark Bros. 8 ft. band mill and heavy carriage, 1 Mershon 66-in. band resaw, 1 Clark Bros. double edger, 1 Wm. Hamilton Mfg. Co. lath mill and boulter, 1 2-saw trimmer, slashers, carriers and everything in the line of labor-saving devices. In connection with this plant, they have recently constructed ten workmen's houses, which are the best of their kind in the land. The interiors of these houses are all furished with Neponsit oak grain and cream wall board.

The concrete double bank mill is running night and day and the company are piling up in their yards (which have a capacity of 50,000,000 ft.), the finest spruce and pine produced in the Maritime Provinces. All their lumber is well graded, each width piled separate, and all well air dried before being shipped.

These mills alone, give employment during the spring, summer and fall (about seven months), to seven hundred men, most of them residing in the town of Bathurst. This number does not include men in the woods cutting and hauling logs. For about four months during the winter the company employ from twelve hundred to fifteen hundred men in the woods, getting the logs for supplying the mills.

In addition to their lumber manufacturing operations the company are now at work constructing their Mitscherlich pulp and container board mill, and have about one hundred and fifty men working on this job. They expect to have it in operation in one year. The capacity of this plant will be eighty-five tons per day, and it will give employment to a large number of men throughout the year. The capacity will be 25 tons of sulphite and 60 tons of container board per day. The mill will be electrically driven. Two of the 576 Babcock and Wilcox boilers will be equipped with ovens for burning the sawmill refuse. The mill will be electrically lighted.

Particulars of the Equipment

The Canadian Crocker-Wheeler Company, Limited, St. Catharines, Ont., who furnished the electrical motors, installed in the planing mill, state that these motors are all for use on a circuit of 550 volts, 3 phase, 60 cycles. The motors are all of the new improved type furnished by this company, suitable for heavy service and their sizes are as follows:—

Slip ring type machines,—1 50 h.p., 900 r.p.m.; 1 40 h.p., 900 r.p.m.; 1 40 h.p., 600 r.p.m. Each of these machines is supplied with secondary starter and resistance for starting duty.

Squirrel cage type machines:—1 60 h.p., 900 r.p.m.; 1 25 h.p., 900 r.p.m.; 1 20 h.p., 720 r.p.m.; 1 20 h.p., 1200 r.p.m.; 1 7½ h.p,, 1200 r.p.m.

Each of these motors is supplied with a Crocker-Wheeler Company standard oil-immersed starter with no-voltage release attachment.

Detailed descriptions of these motors can be found in bulletin No. 155, issued by the Canadian Crocker-Wheeler Company, Limited.

The Canadian General Electric Company, Limited, Toronto, report that the electrical equipment for the Bathurst Lumber Company's planing mill, furnished by them, includes three transformers, each 75 kv.a., 60 cycle, single phase, 2300/600 volts, three transformers each 15 kw., 2300/110 volts, and a switchboard of blue Vermont marble suitable for a 250 kw. generator. The electrical plant also includes an Allis-Chalmers 200 kv.a., 2400 volt, 3 phase generator direct connected to an Allis-Chalmers steam engine, operated at 200 r.p.m.

Wm. B. Mershon & Company, Saginaw, Mich., who furnished part of the equipment for the planing mill, report that the machines supplied by them were their new Standard 60-in. band resaw, and their power feed band ripsaw No. 1 with extension front, both of which are illustrated and described in this company's catalogue. These machines are modern in every particular and represent the latest developments in band resaw design and construction.

The fast feed planer and matcher No. 404, 15 x 6 in., furnished by the S. A. Woods Machine Company, Boston, Mass., is equipped with the Woods Patented double profiling attachment and is capable of matching stock or dressing sidings, of any commercial pattern, up to 300 lineal feet per minute.

This machine is fitted with the Wood's patented automatic feeding table by means of which the feeder can maintain a cotninuous feed of lumber through the machine without any difficulty, at 200 feet per minute, or faster if necessary.

The fast feed double surfacer No. 450, 24 x 6 in., furnished by the S. A. Woods Machine Company, is capable of working up to 200 lineal feet per minute, and is used for surfacing one or two sides. It has the same capacity as the No. 404.

In addition to the planers the S. A. Woods Machine Company furnished a complete grinding outfit for sharpening all the cylinder knives, side head, profiler and other miscellaneous knives furnished with the outfit.

Moving the Forest Products Laboratory

Arrangements are being made for the removal of the Forest Products Laboratory, McGill University, from the old medical building to a building recently acquired on University street, where a miniature pulp and paper making plant will be installed for experimental purposes. Mr. O. F. Bryant, lately chief chemist of the Nekosa-Edwards Paper Company, Port Edwards, Wisconsin, has been appointed assistant chief of the pulp and paper division. Mr. Bryant is a graduate of New Hampshire University.

Mr. J. Bates, the head of the laboratory, recently returned from a visit to the principal pulp mills in the St. Maurice River, P.Q. district. It was intended that he should visit the pulp and paper making schools in Germany, Sweden and other European countries, but in view of the present situation this will no doubt be abandoned.

The Riordon Pulp and Paper Company report sales to June 30 amounting to $1,027,657 which represents an increase of $226,932 over the same period a year ago. Net profits of $132,455 represent an increase of $2,500.

Nova Scotia's Fire Protection Problem

Natural Forest Reproduction Capable of Maintaining Logging Industry If Fire is Kept Out—Recent Important Innovations

Specially Contributed by Elihu Woodworth

IT appears to be a difficult matter to make the average man realize the wonderful recuperative power and capability of our Canadian forests. Much has been said and written concerning the forest wealth of the Dominion, and all are more or less familiar with the magnitude of our lumbering operations, but there appears to be a somewhat general impression that the present activity is only hastening the end, and that the time is rapidly approaching when the great lumber industry will be little more than a memory. This impression is largely due to the destructive manner in which lumbering was once carried on in this country. Felling the trees at one time practically meant the destruction of the forest. The wasteful way in which the work was done left litle opportunity for speedy recovery. The forest growth was destroyed so completely that there was no possibility of reproduction. The recuperative power of the woodland was forced to take another direction, and resulted, if left to itself, in a totally different growth and usually in a much less valuable product.

The reason for the wasteful and destructive manner in which the forest was treated is not hard to discover. In the pioneer days the forest was regarded more or less as an enemy. It had to be removed to provide land for cultivation and for pasture. Its only value to the early settler was to supply his personal requirements in the way of building and fencing material and of fuel. There was no market for the product of the forest and magnificent timber was felled and burned as the quickest and easiest method of getting it out of the way. If the timber thus destroyed in cleaning some farms were available today, it would be worth much more than the farms in the present condition.

Even in later days, when timber began to have a regular market value, when "Jack-knife" saw mills were erected on many of the streams, and farmers began to adopt lumbering as a "side-line." The methods of operating were extremely wasteful and destructive. The farmers saw no occasion for economy in the forest, no matter how careful and saving they might be elsewhere. Why worry about saving timber when the woods were full of it?

Why let a young tree stand when it was easier to fell it than to go around it? Why chop a tree close to its roots, where it is largest, when it is much easier chopping two or three feet above the ground? Why trim the tops of trees and get knotty lumber when an abundance of logs might be had without doing any trimming? The philosophy of the farmer-lumberman failed to find any need of economy in his woodland operations, and it is not surprising that men who were familiar with his methods and with the methods of many of the lumbermen who succeeded him, thought they saw in the vastly increased output of the later years, the beginning of the inevitable end.

Production Still Increasing

But the end of the lumber industry is not yet in sight, at least so far as Nova Scotia is concerned, and there is no marked diminution of the yearly lumber output. It is true that the shipments from some localities are smaller than in former years, but, on the other hand, the exports from other sections have largely increased. It is also true that the quality of the lumber now shipped from some ports differs materially from that which was formerly exported. More small lumber is now shipped, and there is a marked increase in hardwood shipments. This is partly due to changes in the demand, and partly to a more intensive system of lumbering. Trees which were too small to make deals, and which, when they had to be felled, were left in the woods, are now converted into scantling or battens. Under present conditions a profitable market has been found for stuff that in former years was not considered worth handling.

As an illustration of the permanence of our lumber industry when an intelligent system of operation is adopted, the case of Parrsboro, N.S., may be cited. Parrsboro is the leading port in Cumberland County, and in 1890, owing to good markets and other favorable conditions the lumber shipments, which for years had been steadily increasing, reach their culmination. This was the day of the wooden sailing ships, and as many as twenty ships and barques might have been seen at one time in Parrsboro Roads taking in cargoes of deals for the British markets. There was abundant employment for every one who was able and willing to work, and it was a period of general activity, but the pessimist was abroad in the land and the cry that Parrsboro's lumber trade was done was heard on all sides. Some of the prophets of evil admitted that a few scattered cargoes might still be shipped from time to time, but all agreed in pronouncing it impossible that the further output should ever again reach the proportions it had then attained. But, notwithstanding all pessimistic predictions, lumbering operations still continued and the output showed no startling decrease. Fewer deals were shipped, but the quantity of small lumber cut was much larger than before, and helped to even up matters. Some timber limits changed hands, and the new owners went to work with a will. Other owners increased their holdings, and pushed their operations with renewed vigor. Saws were introduced in the place of axes for felling and cutting up trees, and this effected considerable saving of lumber and labor. Tree tops, such as were once left in the woods, were carefully trimmed, and thus more lumber was saved. A way was found to reach patches of timber which had been left standing because they were not easily accessible, and in this way some valuable lumber was added to the general output. In the meantime the recuperation forces of the forest were quietly getting in their work, and trees that were scarcely more than saplings when the land was chopped over were rapidly becoming large enough for sawlogs. Fluctuations in the extent of the shipments have been caused by low prices, high freight rates, scarcity of snow and other unfavorable conditions, but the general average has been fairly well maintained, and now, after the lapse of nearly a quarter of a century, this season's output promises to establish a new record and exceed the shipments of any other year. This surely furnishes satisfactory proof of the reproduction capability of our forests under judicious treatment, and affords a reasonable guarantee of permanence, if careful and intelligent conditions are observed.

Fire the Most Dreaded Enemy

Fire is the most dreaded and destructive enemy, with which the lumberman has to contend. Forest fires, however, would be practically a negligible quantity, if it were not for the criminal carelessness or thoughtless of irresponsible persons. Great conflagrations have been caused by the neglected fires of fishermen and other campers, and nearly all forest fires may be assumed to originate in this way. By far the greater number of those who visit the lakes and streams of the forest are, strictly speaking, trespassers, but few would object to their presence if it were not regarded as a menace to the safety of valuable property. If forest fires merely destroyed the standing timber on the lands they ravage, the result in all cases where the flames are not speedily checked would be a serious loss, but, unfortunately, in many cases, the effects of a conflagration are much more disastrous. When a tract of woodland is carefully and judiciously cut over, the operations may be repeated in fifteen or twenty years with satisfactory results, but, when the forests are devastated by fire, thirty or forty years must elapse before the land will regain any value for lumbering purposes. Even then the trees that were destroyed are likely to be replaced by an entirely different growth, and in many cases the new crop is practically valueless for lumber. It is fair to assume that the persons who are chiefly responsible for all this loss and destruction do not fully realize the amount of mischief caused by their carelessness, and there is always hope that they may be led to adopt a wiser and less dangerous course. But if there be any who wilfully and recklessly leave fires in the woods which are fairly certain to cause damage, they should undoubtedly be subject to severe punishment.

Various efforts have been made in recent years to provide for the protection of the forests of Nova Scotia. The Legislature has passed an act authorizing the appointment of forest rangers in all parts of the province. The chief ranger in each county has authority to summon any one within reach to assist in fighting fires, and to impose penalties in any cases where his commands are disregarded. The deputy rangers are supposed to be constantly on the watch for incipient fires, and to report at once to headquarters, if a fire be discovered, meanwhile making every effort in their power to arrest its progress. The owners of timber lands pay an annual tax of one-fourth of a cent per acre on all their holdings, and the fund thus raised is applied to defray the cost of the service. In this system, as in many other undertakings, very much depends upon the quality of the men selected to fill the positions. In some cases the working of the system has proved fairly satisfactory and large fires have undoubtedly been prevented by the prompt and energetic action of the rangers. In other cases the work has been poorly done and not at all to the satisfaction of the lumber operators. In fact, it has been stated, on what should be good authority, that forest fires in some districts have burned several days without being reported. If this be true, it is not sur-

prising that some lumbermen are seeking a more efficient and reliable protection.

Private Enterprise Becoming Active

One of the largest operators in Cumberland county has recently adopted protective methods such as have been in use some years on portions of the Pacific Coast, and in some other large lumber regions. He has erected steel towers on the highest elevations of his timber lands, and these are so arranged that they command a view of the whole area. These towers are connected with each other and with the outside world by telephone. In each tower, while daylight lasts is stationed a reliable man who is furnished with powerful field glasses. If one of the watchmen sees a puff of smoke in any part of the forest it is his duty to notify the others of the fact, giving them the direction in which the smoke is seen and if possible its approximate distance from the nearest tower. The watchman who happens to be nearest to the spot where the smoke is discovered is instructed to go at once to the threatened point and ascertain whether the fire which causes the smoke is likely to prove dangerous and whether outside aid will be required. Meanwhile the men remaining in the towers are under instructions to keep a sharp look-out for any person who may be going out of the woods, as it is hoped in this way to discover who is responsible for setting the fire. Of course, the whole staff of watchmen will help in putting out the fire if required, and if necessary, the mill men and others within reach may be called in by 'phone to assist. This should do much to lessen the danger from forest fires for it should prevent them from geting beyond control. With plenty of help within reach the suppression of a fire in its earlier stages should be easily accomplished. The system is said to work well wherever it has been tried, and the lumberman who is introducing it into Cumberland feels assured of its success. The cost of operating will be somewhat greater than under the present system, but it is confidently believed that the resutling benefit will be much more than correspondingly great. If the system proves as efficient as it is hoped and believed it will, there is no doubt that the Government will be asked to substitute it for the system now in use. Failing in that, it is probable that a lumbermen's protective association will be organized, so that ,by co-operation, they may be able to secure the best results. The forests of Nova Scotia are a valuable asset. They have produced much wealth, and they have given employment to an army of men, and very frequently at times when other employment was hard to get. Even their partial destruction would be a great calamity. Therefore the introduction of any measure which will protect them against this greatest enemy, against the only one that really threatens their permanence will be a consummation that will be gladly welcomed by all right thinking people.

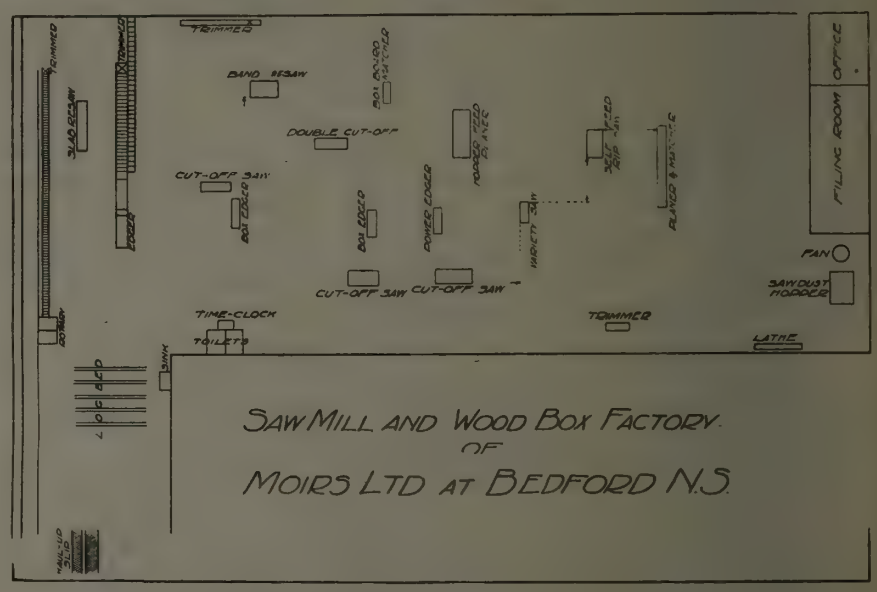
Confectionery Firm's Fine Sawmill

Concrete Building With Modern Equipment Belonging to Moirs, Ltd., of Halifax —Layout and Operation of Interesting Plant

MOIRS, Limited, of Halifax, Nova Scotia, the largest bakery and confectionery manufacturing establishment in Canada, have for a great many years operated a saw mill and wood box factory, their mill being situated at Bedford, about nine miles from Halifax.

About two years ago the mill, which was a wooden structure, was completely destroyed by fire. The firm immediately commenced to build a modern mill of reinforced concrete with mill construction floor and wood truss roof. The building is 110 ft. long, 60 ft. wide with a 10 ft. high basement and 11 ft. clear under the truss on working floor. A concrete floor has been laid in the basement. The first floor, which is of mill construction, is covered with hardwood. A new turbine house, shavings vault, engine room, boiler house, smoke stack and dry kiln have been built, all of reinforced concrete. The doors and windows are of fireproof contsruction. The roofs of all buildings, with the exception of the mill, which is covered with galvanized iron, are of reinforced concrete. The main line of shafting, which is 100 ft. long, and all countershafts are hung to the ceiling in the basement, all belts being brought up through the floor to connect with the different machines.

On the working floor of the mill there are no posts, belts or any other obstruction to interfere with the quick and economical handling of materials. This floor is on a level with the platform of a railway car, and all shooks and lumber can be loaded direct from the machines. The building is electrically lighted, all the wiring being done in conduit. On the mill floor alone there are eighty thirty-two candle-power incandescent lamps. The current is supplied from a generator, which is operated by a small 8-in. turbine built especially for this purpose by Messrs. Charles Barber and Sons, of Meaford, Ont. The mill is operated by a 150 h.p. Canadian turbine, also furnished by Messrs. Charles Barber & Sons. A steam plant of equal



capacity has been installed as an auxiliary, and has been placed in such a way, that simply by pulling the lever on a friction clutch, the drive can be changed from water to steam. The machinery for the saw mill was supplied by the Lane Manufacturing Company, of Montpelier, Vermont. All the heavy machinery such as, band resaws, planer and matcher, self-feed rip saws, hopper planer, etc., were supplied by the Berlin Machine Works, of Hamilton, Ont. The small box machines were purchased from Messrs. B. G. Luther Company, Inc., of Worcester, Mass. The blower system to take care of the shavings

Reinforced Concrete Sawmill at Bedford, N. S., belonging to Moirs, Ltd., Halifax, the well known confectionery makers.

and sawdust was installed by the Sterling Blower Company, of Hartford, Connecticut. The transmission machinery by the Dodge Manufacturing Company, of Toronto, and the leather belting by Messrs. J. L. Goodhue & Company, Limited, of Danville, Quebec.

Moirs, Limited, carry on their own logging operations, and each year cut about one and one-half million feet. These logs are conveyed by water about fifteen miles to the mill. Most of the lumber is used in the manufacture of boxes and cases for the packing of Moirs' biscuits and Moirs' confectionery, which are so well known to the people of Canada. They also manufacture flooring and sheathing and ship hardwood deals to the English market. Last year they supplied some of the large timber, which was shipped from Halifax for use in construction work at the Hudson Bay Terminals. The logs are sawn on a double rotory mill supplied by the Lane Manufacturing Company, two thirty-two-inch inserted tooth saws being used, one above the other. The mill has a capacity of thirty thousand feet per day.

The firm own a large tract of timber lands, and control a valuable water power having a 60 ft. head. The water is conveyed from the lake to the turbine by an iron pipe 4 ft. in diameter, and about half a mile long.

Interesting New Mill At Joliette, P. Q.

William Copping After Losing Two Mills by Fire Constructs Splendid Plant With Capacity of Ten Million Feet a Year

At Joliette, P.Q., the new mill erected recently by Wm. Copping, to replace the one which he lost last summer by fire, has now been in operation since July 2nd, and is proving to be a splendidly designed and equipped plant. With the experience of many years in the lumber business, and with the added experience resulting from having been twice a victim of fire loss, Mr. Copping has been able to erect a plant which is the equal in efficiency of any plant of similar capacity in the country.

The building is 48 ft. x 172 ft. of two and one half storeys, standing on a solid stone foundation built partly over the river bed. The river bed is a solid ledge of rock, affording an ideal foundation upon which to erect a building.

Alongside of the mill, on the side adjoining the river, are boiler and engine rooms, in a building which is 31 ft. wide by 99 ft. in length, built with a solid wall of brick one-foot thick and covered with 2 x 6 timber on edge side by side, making a roof 6 inches thick which is supposed to be practically fireproof, and is known as a "slow-burning" roof.

The machinery in the mill consists of two eight-foot single cutting band mills, taking 12-in. saws with 10-in. x 36-ft. steam feeds; one Kendall circular gang; one Diamond Iron Works resaw with six foot wheels taking ten-inch saws; two 40-in. edgers, slashers, trimmers, log haul, steam loaders, niggers, kickers, and all the necessary shafting, friction pulleys, etc.

Wm. Copping's Mill, Joliette, P. Q.

In connection with this mill Mr. Copping has also another small sawmill 20 ft. x 65 ft. of two storeys, in which he has installed a fifty-two inch inserted-tooth circular saw, with small cut-off saw and hand edger. This small mill is run by water, but when the water becomes too low, it is hitched up and run by steam along with the large mill.

The power for the main sawmill is supplied from a battery of four 66 in. x 16 ft. horizontal return tubular boilers, and the mill is run by a 19-in. x 24-in. Atlas heavy duty engine, with the exception of the circular gang, which is run by a 150 h.p. Leonard engine, independent of the rest of the mill.

The filing room machinery consists of two Hanchett automatic band saw sharpeners, one automatic rip and cross-cut sharpener, retoother, lath grinder, brazing table, forge, etc., all Hanchett machinery. One 8 h.p. vertical engine supplies the power for the filing room.

The machinery has been supplied, partly by The Wm. Hamilton Company, Limited, of Peterboro, Ont., and partly by The Waterous Engine Works Company, Limited, of Brantford, Ont.

The saws are partly from Henry Disston & Sons, Limited, and partly from The Simonds Canada Saw Company, Limited, and the belting from J. L. Goodhue and Company, Limited, of Danville, Que.

Throughout the mill is installed a complete water system for fire protection of perforated pipes in which are placed a cluster of three brass nipples spaced every three feet apart. This system is connected on to the corporation main, and there is also a belt-driven pump in connection with the mill, of 2,000 gallons capacity per minute, which is operated by one of the water wheels, and connected with all the different feed pipes.

This year Mr. Copping has a cut of about 9,000,000 feet of logs, but, as part of his drive was hung up, he may not saw more than four or five million feet this season, unless heavy rain should bring down the balance of the drive.

In planning the mill Mr. Copping estimated upon cutting about 10,000,000 feet of logs per year. At present he is turning out from 80,000 to 100,000 feet of lumber per day, and feels satisfied that the mill will turn out 10,000,000 per year if required.

It is now about fifty years since Mr. Copping settled in Joliette,

Wm. Copping
General Manager

D. E. Copping
Manager

S. E. Copping
Former Woods Manager

Thomas Wilson
Mill Foreman

P.Q., and since locating there he has been interested in several different kinds of business, principally the lumber business. He conducted a general grocery and provision store for several years and also worked for a number of years with Mr. A. Kelly in the grocery business. Then he became interested in the lumber business with Mr. F. Kelly as partner. Later on Mr. Kelly died and his son became Mr. Copping's partner. After this he sold out his share to the son and then opened a store on his own account. Not long after this Mr. Kelly Junior failed and the Hochelaga Bank became the owners of the mill property and limits, and it was from the bank, in 1892, that Mr. Copping bought the property and became sole owner.

Then he pulled down the mill which was a steam-driven plant and built a new sawmill which ran by water power. In this mill he had two circular saws and a re-saw, edger, etc., with which he used to cut about 40,000 logs per year. The output was gradually increased until he eventually had to install steam power, as the water power was decreasing every year. This he did about the year 1902, and in 1907 he made a few changes and put in a double cutting band-mill with steam feed which he ran for three years until on the 21st of June, 1910, the mill was destroyed by fire.

Mr. Copping commenced immediately to rebuild and had the mill running by October, and got out part of his cut that fall. This mill was run with circular saws until the winter of 1912, when he made considerable changes, installing a single cutting band-mill with steam feed and a circular saw with steam feed, also a Kendall circular gang and a Diamond Iron Works re-saw, new edger, etc. The installation of this machinery was almost completed and the mill ready for operation when, on the 17th of June, 1913, the mill was again burnt to the ground, leaving Mr. Copping just where he had been in 1910; owner of limits and other property, with 140,000 logs in the river and no mill.

Mr. Copping lost no time in getting into touch once more with manufacturers of sawmill machinery, and ordering new machinery. While the plans of the present mill were being made out and the machinery built, he put up a small sawmill on the river bank in which he placed a circular saw rig which he had taken out of his sawmill the previous winter. This mill he ran by a 30 h.p. electric motor, and had it in operation by the 2nd of July, sawing out nearly all the dimension and other timber which he used in building the new mill, also sawing quite a lot of lumber for sale.

The plans for the building and for the layout of the machinery were made by Mr. I. N. Kendall, of Westboro, Ont., and the erection of the building and the installation of the machinery were under the supervision of James Morrison, of Ottawa, Ont. Mr. Copping commenced sawing in this mill on the 20th of May.

The limits owned by Mr. Copping consist of 63 square miles of timber land on which there is over 100,000,000 feet of standing timber, principally spruce, with a fair percentage of white and red pine. The driving facilities are very favorable, and it is very seldom that any of his drives are hung up, unless, as happened last spring, very dry weather prevails.

Mr. Copping's business is under the management of his nephew, D. E. Copping, who has been in his employ for 17 years, and the operation of the mill is under the supervision of Thomas Wilson, of Hull, P.Q., the foreman.

The lumbering operations and river driving were under the direction of his brother, Mr. S. E. Copping, until recent years, when his health interfered. Since then, Mr. Paul Charette, has been looking after this part of the work.

In connection with the sawmill Mr. Copping also operates a planing mill 52 ft. x 65 ft., one and one-half storeys, in which, at present, he has only old planers. He will soon be replacing these machines with new and larger planers. The planing mill is under the supervision of his old foreman, F. X. Flamand, who has been with him many years. The location of the plant is very advantageous as it caters to an extensive local trade, and having both C. P. R. and C. N. R. lines running through the town, he is able to sell the better part of his refuse at a profit.

Although trade conditions have not looked very bright so far this year, Mr. Copping reports that they are apparently commencing to pick up now.

Interesting Addition to Quebec Mills

Operations of Finch, Pruyn and Company Inc., in Lotbiniere County, P. Q—Modern Logging and Sawing Equipment Installed

ONE of the most interesting recent additions to the lumber producing plants of Canada is the sawmill which has been erected in Lotbiniere County, P.Q., upon that portion of the Seignoiry de Lotbiniere lying along the line of the Intercolonial Railway, about 130 miles east of Montreal, by Finch Pruyn & Company, Inc., of Glens Falls, N.Y. The area upon which the operations are conducted is nearly rectangular in shape, being 12 miles long and 5½ miles wide at the western end, but narrowing to just five miles on the eastern quarter. This gives an area of approximately 40,000 acres, about two-thirds of which is located south of the Intercolonial Railway. The company thus have about 14,000 acres north of the railroad and 26,000 acres south. The merchantable stand of timber upon this property is estimated about as follows:—

1. Red spruce—distributed over almost the entire area excepting a few swamps.
2. Balsam—found everywhere in mixture with the spruce.
3. Hemlock—heavy cut along the streams and scattered through much of the spruce and balsam.
4. Cedar—scattered through the spruce and balsam and in nearly pure stands in a few swamps.
5. Hardwood—yellow birch, ash, basswood, maple, etc., found on the high spots and along streams.
6. Black spruce and tamarack—nearly pure stands in the lowest swamps.
7. Pine—a few scattered throughout the tract.

The topography of the property is generally smooth and level with a very slight slope to the north, but not sufficient to make a serious grade. There are three streams of drivable size flowing from south to north through the property.

The Logging Operations

The operations of the company are conducted under a cutting right which expires at the end of twenty-five years from April 1, 1911. In view of this, the compartment system of cutting has been adopted and the area divided into twenty-four compartments, one of which it is calculated to cut each year, or in any event to so cut that the average will be 1/24th of the area annually. The interest of the company

Finch, Pruyn and Co.'s new sawmill on the Henri River, Quebec

Timber Crib Dam on Henri River, making Log Pond for Finch, Pruyn & Co.

in this investment and in the conduct of its operations for logging was primarily in securing a supply of pulpwood for its paper mills located at Glens Falls, New York, and the proportion of the spruce and balsam 11-in. and under which, cutting at the above rate would yield, supplies the company with its stock of Canadian pulpwood. The spruce and balsam logs 11-in. and up are, with the other stumpage, made into saw logs and manufactured into lumber at the company's mill located near the geographical centre of the tract on the Henri River. Operations for the seasons of 1911-12 and 1912-13 produced upwards of 25,000 cords of peeled four-foot spruce and balsam pulpwood and upwards of twenty million feet of saw timber.

The topography of the area and the proximity of the Intercolonial and the Grand Trunk Railways influenced the company to use logging railways for the transportation of their products. They have constructed, and have in operation at the present time, upwards of 12 miles of logging branches, including a branch from Joly Siding to the Henri River mill, a distance of nearly 5 miles. It is the intention of the company to use the streams for driving and floating logs to their sawmill, where such use proves to be an economy in comparison with the use of the railroad branches, but it is not probable that it will be found economical to put any of the pulpwood stock into the water. During the two past logging seasons there have been employed in these operations upwards of 600 men during the bark peeling season, and the average number of employees has been in the neighborhood of 400. Up to the present time the company have found it best to conduct this operation by contract, and all the logging heretofore done has been under a contract with one jobber sufficiently experienced and able financially to undertake the performance of so extensive a contract.

The railroad logging operations of Finch, Pruyn & Company are mostly by standard gauge railway, 56 lb. rails being used. The present equipment consists of two 42-ton Heisler geared locomotives and one 40-ton rod engine. The Heisler engines are equipped for burning oil during the dry months. This type of locomotive has proved very satisfactory for the existing conditions and is especially easy on the track.

Logs are loaded by means of an American Model C loader. This machine is fitted with standard gauge wheels as well as the regular wheels, so that it can be operated on standard gauge track. The loader is also equipped for burning oil. The log pond at the mill is formed by a timber crib dam across the Henri River at a point about a mile and a half north of the Intercolonial Railway. The dam is 19 ft. high and approximately 130 ft. long, with wings to the bank at either end. There is a 6 x 10 sluice-way through it. The pond extends up-stream some distance, submerging about thirty acres.

The Samwill and Equipment

The fine new sawmill of the company is located on the east bank of the Henri River and is connected with the present logging operations by rail. The yards were laid out with the idea of adding later a planing mill, a rossing plant for pulpwood, a tie and shingle mill, a chemical plant, dry kilns, or other developments, should conditions warrant investment in such enterprises. The mill was designed by Mr. L. H. Street, of Clark Brothers Company, Olean, N.Y., who also furnished the machinery. The mill building proper is 174 ft. by 40 ft. and the sorting table is 150 ft. long. There is also a large addition to be used later in the manufacture of specialties to meet the demands of the market. The mill is of heavy timber construction with corrugated iron roof.

The equipment of the mill is of very liberal design and was selected after much painstaking study of the requirements of the situation. The mill is served with logs by the usual single chain log slip. A large swing saw is located over the chain just inside the mill and used to cut in two double length logs. The mill has the usual steam operated log deck machinery, the kicker and loader having three and four arms respectively in order to handle satisfactorily logs of varying lengths. The logs are turned on the carriage by an 8 x 10 oscillating steam nigger.

The carriage has three blocks, with a fourth mounted on a trailer truck. It is fitted with hand set works and runs on 60 lb. railroad rails. It is handled by gun-shot steam feed, 12 inches in diameter. The band mill is a standard right-hand single cut mill with 8 ft. wheels for 12 inch saws. Cants from the band mill are transferred to the second sawing unit which is a Clark 7 ft. vertical resaw which carries a 12-in. saw. A single 75-inch edger stands between the two trains of live rolls and the slabs and edgings are taken care of by a slasher carrying five saws, which is located outside the main building in the by-product mill. This arrangement gives plenty of room for placing slabs on the slasher chains properly, so that there will be the least possible waste of useable stock. The design provides for the easy removal of the slasher saws, permitting the slabs to pass into the by-product mill to be cut into unuual lengths for specialties.

Lumber is trimmed on a Clark automatic trimmer which appears to be an innovation in Quebec but is widely used in the spruce mills in the United States. The sorting chains are of the usual type, and light trucks running on 25 lb. rails are used to take lumber out to the yards.

The carriage will handle logs up to 32 feet long. The balance of the mill is laid out to take boards or cants up to 24 ft. in length. The main line of live rolls can transfer boards to the trimmer, or dimension timber to storage chains as operation demands.

The by-product mill at present contains only lath machinery. This will be supplemented later by other by-product apparatus as noted above.

Transmission Machinery Equipment

The arrangement of the transmission machinery is notably simple and direct. There are two line shafts, one for the sawmill proper and one for the by-product mill. There is also a short shaft directly under the band mill, and these three shafts are driven by a divided American rope drive direct from the engine wheel. Rope drives have been used by Finch, Pruyn & Company with success in their sawmills at Glens Falls, and also in their pulp and paper mills at the same place, and this consideration influenced them to adopt a similar drive for the Canadian mill.

The refuse burner was located in the pond some 400 feet from the mill building and in such a direction that the prevailing winds blow away from the buildings.

The boiler house is of fireproof construction and contains, at present, three 72-in. x 18-ft. horizontal return tubular boilers mounted in brick casing. The boilers have individual stacks and the usual Dutch oven furnaces. They are suspended from wall girders supported by steel columns, so that no weight rests on the brick-work. They were furnished by the Waterous Engine Works Company of Brantford, Ontario. Provision was made for additional boilers should more steam be required on account of later additions to the plant. All the boiler steam outlets are provided with automatic emergency stop and check valves, and all of the steam piping is extra heavy. The blow-off valves are double and every precaution was taken to make the plant safe and reliable.

The Power Plant

The mill is driven by a Clark automatic two-value engine with cylinder 24 x 24. The engine carries a 10 ft. wheel grooved for fifteen 1½-in. ropes and runs 160 revolutions per minute. The engine room also contains two duplex outside, end packed boiler feed pumps and a cold water pump for supplying water to the feed water heater and for meeting other demands for water about the mill. The feed water is heated and purified by a Blake-Knowles 600 h.p. open heater. All of the principal steam exhausts go into a single exhaust main which opens into this heater and from which a connection is provided as a means of keeping open a part of the log pond for winter sawing.

The engine room further contains a 35 kw. Westinghouse lighting generator direct connected to an Ames automatic horizontal engine. This set furnishes power for lighting the mills, machine shop, warehouse, office, hotel, and bunk-house, as well as the yards.

The company has built adjacent to the mill a machine and blacksmith shop with ample room and equipment for ordinary repairs to mill machinery and to the company's locomotives and logging machinery. The isolation of the plant made it necessary to have an unusually complete shop equipment.

The matter of fire protection has received a great deal of attention. The system will include larger pumps and mains than are usually installed under similar circumstances. The company have also constructed a portable fire fighting car carrying a 6,500 gallon tank and a pump capable of giving three good fire streams. This pump is operated by steam from the locomotive which hauls the car. The car is provided with racks for hose and carries a complete equipment of tools so that it will be always ready for emergency calls during the dry season.

Ontario Timber Sales

The privilege of cutting red and white pine on three timber berths in the Township of Blyth, north-west of North Bay, Ont., has been disposed of by the Department of Lands, Forests and Mines by public tender. The highest bid was accepted for each berth and the province will receive a substantial payment on the lumber cut.

For berth No. 1, comprising 12 square miles of territory, J. R. Booth, of Ottawa, was the successful tenderer. He will pay a bonus of $10.50 a thousand feet board measure in addition to the Crown dues of $2 a thousand feet and $10 a square mile in ground rent.

For berth No. 2, in area 12 square miles, there were two equal tenderers, Mr. J. R. Booth and Mr. George Gordon. They agreed to operate on the limit jointly. A bonus of $8 a thousand feet will be paid in addition to the regular dues and ground rent.

Berth No. 3, which is six square miles in extent, went to J. B. Smith and Sons, of Toronto. That firm will pay a bonus of $10.26 a thousand feet on the cut, as well as the Crown dues and ground rent.

In each case a deposit was received by the Government.

Administration of B. C.'s Timber Lands

An Outline of Forest Protection, Logging Regulations, Scaling Methods and Timberland Examination as Carried Out by the Government

By H. R. MacMillan, Chief Forester for B.C.

The Forest Branch of the Lands Department in British Columbia is organized upon the theory that all that pertains to the administration or protection of timberlands is forestry. The general Canadian idea is that the planting of young trees is the chief end of forestry. In a country where there are no trees as in the western plains or in South Africa, or portions of Australia and New Zealand, this is true. But in a country like Canada where we have large areas of public forest land, carrying mature timber which is sought after by private individuals and in which logging operations are conducted, as well as large areas of devastated forest land covered with young trees, the hope of the future, every government owning tinber should rise above this narrow definition of forestry and seek economy in civil service organization as well as economy and efficiency in administration by entrusting to one unit or branch of the public service all lines of work connected with timber administration, whether it be tree planting, protection of the forest from fire and theft, exploration of the forest resources, inspection of logging operations, scaling, collection of revenue, framing a progressive timber sale policy and making of timber sales, studying forest industries and forest products or classification of timberland as differentiated fron land suitable for settlement. There should be no reservation of the Forest Branch to Forest Reserves. A forest organization capable of administering forest reserves, which are the hope of the future, is certainly capable of administering the other public timberlands which are the mainstay of the present.

The Forest Act of 1912 recognized these principles in British Columbia. The Forest Branch was organized to represent every duty of the government toward timberland, timber and the timber industry. The details of the organization are yet being worked out. The programme for 1914, while admittedly imperfect, is in advance of 1913, as 1913 was in advance of 1912.

The main divisions of the work being carried on at present are, fire protection, timber administration, land classification.

In the summer season the most conspicuous duty of a Forest Branch is the protection of the forest from fires. The British Columbia fire season is usually from April 30th to September 30th.

Forest Fire Protection

The method of financing the fire protective canpaign in British Columbia is fairly well known. The owners of all timbered Crown grants, leases, licenses or timber sales pay 1½ cents per acre per year. An equal sum is added by the government and the whole, amounting to $369,000 for 1914, is used for protection. The overhead expenses of administration and many permanent salaries are paid by the government.

The fire protective organization is not confined to privately owned tinber, or even to mature timber. British Columbia in common with Ontario, Quebec and other provinces, does, and always will, count timber amongst the first assets, and therefore the young timber is protected almost equally with the mature. A forest fire which escapes control anywhere is counted a disgrace.

The organization is made as simple as possible. An important section of the Forest Branch in charge of an Assistant Forester at Victoria is devoted to fire protection. This executive officer plans the organization, studies the fire situation so far as possible a year in advance and has staff, public regulations, staff instructions and equipment mapped out at least four months in advance.

The execution of the programme is carried out through a field organization of District Foresters, rangers and forest guards. The province, for forest administrative purposes, is divided into eleven forest districts, each in charge of a permanent District Forester who is responsible for all government forest work in his district. The forest districts vary in area from 6,000,000 acres to 36,000,000 acres. All forest land in each district, whether publicly owned, leased, licensed, or Crown granted, is under the administration of the District Forester so far as the government interest is affected. Each forest district is divided into ranger districts averaging in area 4,545,454 acres. The ranger is a permanent man, competent to handle all forest work, including fire protection. For the six summer nonths the forest ranger's chief duty is the supervision of fire protection. His efficiency in this work is increased by his knowledge of the district gained in other phases of forest work throughout the year.

The distribution of the forest guards, the temporary summer fire preventers and fire fighters, is decided by the district foresters and rangers. The number of guards and their locations are changed from year to year according to local fire hazards. The fire hazard has been found to begin about May 1st, run about constant through May and June and increase through July and August. Therefore, in order to get the most service for the money available, a skeleton force of men is put on about May 1st, to serve for five months. The District Forester is, at this tine, given authority to increase his force promptly at such times and at such places as weather conditions and fire hazards may indicate, but to endeavor to hold off until about July 1st, and at that time put on as many three months' men as are necessary. This plan has been found very satisfactroy. By giving the protection when it is needed and where it is needed it has increased the efficiency of the force without increasing the cost. The forest guards are all local men and are recruited from logging camp employees, surveyors' assistants, timber settlers, and other active men experienced in the woods and in handling men. They are paid $90 to $100 per month, allowed $12.50 per month for horse hire and are allowed board and horse feed when away from headquarters. Hiring them on the above terms by the month has been found more economical than the old system of hiring them by the day with full expenses. Many guards in British Columbia are supplied with boats.

The plan of fire prevention is the same as elsewhere. New and attractive notices are got out each year to catch the public eye. A constant attempt is made to reach all sections of the population and secure their support. This season mile boards bearing sentences of caution and interest about the forest were put up along all roads. Good pocket whetstones with a camp fire warning printed on the back were very popular with loggers, campers and boy scouts. Striking lithographs pointing out the necessity for care to prevent fire in the forest were put up in all roadhouses, schools, hotels and country banks. Attractive lithographs were distributed to the school children of the Province and the teachers were asked to give a lesson on fire protection. Colored lantern slides illustrating forest protection were distributed to all moving picture shows and are used as intermission scenes between acts. The rural preachers were asked to cooperate by delivering an appropriate sermon, as fire protection is a requisite of good citizenship. Altogether, an excellent spirit of cooperation has been secured which accounts more than anything else for any success we may have. In many sections of the Province not even an acre of little trees can burn without a fire alarm being rung in. The rural telephone companies carry a warning on the directory cover and every subscriber is a fire warden.

Distributing the Cost

The cost of fighting a fire is borne in different ways according to circumstances. If a fire originates within 200 feet of a railway the cost is borne by the railway company. If the fire starts on the workings of a logging operator the cost, if the operator has obeyed all provisions of the Act, is shared between the operator and the Government, otherwise the operator pays all. If the fire originates through carelessness on private land, the careless one bears the whole cost whenever he can be held responsible. Accidental fires on public lands are usually paid for by the Government.

The most valuable feature of the whole fire act is the permit system. Anyone lighting a fire for any purpose except cookery or securing warmth must secure a permit. Nearly 13,000 permits were issued in 1913 and only seven fires escaped. All guards and forest officers issue permits. The area to be burned is always inspected and precautions taken. If conditions are dangerous permits are refused.

The funds now available are insufficient to protect the timberlands of the Province adequately. An increase will be necessary as settlement increases.

Co-operation is received from the Dominion Government. Rural mail delivery carriers give notice of fire. The Meteorological Service gives warning of dry weather and fire winds, knowledge which is valuable in perparing for dangerous weeks by closing down permit and industrial fires.

All branches of timber administration, including inspection of logging operations, log scaling, log, grading, supervision of timber export, cruising and sale of Government timber and land classification are looked after by a section of the Forest Branch known as the Office of Management. This section of the Forest Branch is in charge of an Assistant Forester.

Inspection of Logging Operations

All logging operations are inspected on an average of once in three months. The inspection is carried on by the forest ranger in

charge of the district who reports fully to the District Forester after each inspection. The purpose of a detailed regular inspection is to keep the officers of the Forest Branch colsely in touch with the loggers and logging conditions of the Province, to enable the users of the timberlands to transact business readily with the Government. Whatever form forestry may take in Canada, whatever regulations may in future be considered necessary, the most important part of the work will be carried on through the logging camps. Therefore, before any policy of forest management can be launched, which looks towards cleaner logging, encouragement and protection of valuable young growth, there must be a close working co-operation between the loggers and the forets officers. The benefit of this working understanding will be expressed quite as definitely in the education of the forest officers as in the education of the loggers.

Logging inspection in British Columbia at present, in addition to keeping the forest officers informed of conditions, has for its object the enforcement of such regulations as prevention of trespass, marking the logs before floating and non-employment of Chinese and Japanese. Except in Forest Branch timber sales there is not at present any enforcement of regulations for clean logging or brush disposal. The Forest Branch has authority to charge double royalty on merchantable timber left in the woods, and to order the burning of dangerous slash, but under present conditions this authority is not generally exercised. When slash constitutes a serious hazard, orders are issued for its burning. An endeavor is made to secure the voluntary burning of slash by operators; about 6,500 acres was burned in Vancouver Forest District in May.

Rangers on logging inspection are instructed to see that all Government timber tributary to the operation is taken off before the operator leaves the ground. Such timber is sold by public tender. These sales vary in size from a few trees sold without formality by the District Forester, to sales amounting to 50,000,000 feet. Every timber sale contract requires clean logging, short tops, low stumps and brush disposal. The customary method of brush disposal on the Coast is broadcast burning, a cheap and effective method which disposes of the fire hazard and encourages the reproduction of Douglas Fir.

The demand for timber sales in 1914 is not so great as it was in 1913, the price of logs being down to an unprofitable level. The only exception to this is the demand for timber for pulp manufacture, several large applications being in hand to establish a thirty years' supply of timber for the B. C. Sulphite & Fibre Company.

Log Scaling Regulations

All log scaling in British Columbia is under the direct charge and supervision of the Forest Branch. West of the Cascade Mountains, logs are scaled by official scalers in the employ of the Forest Branch. The scalers are all experienced men. Additions to the staff are selected by written and practical examination. The scalers in each district work under the direction of the District Forester. In the Vancouver District, where the bulk of the scaling is done, the District Forester is assisted in his supervision of scaling by a supervisor of scalers who gives his whole attention to the scaling work.

As well as being a basis for Government royalty the scale is the basis for payment of all charges due on the logs, the payment of the logger, the towage, the purchase and sale of logs, etc. The scale is therefore of the utmost importance to everyone in the timber business. In order that all facilities might be provided for the hearing and consideration of any grievances, arrangements were made this year by the Forest Branch to meet quarterly a scaling committee of the lumber association and of the shingle association. The committees have been appointed and preliminary meetings held, possible methods of improvement of scaling being discussed. As a result of these meetings arrangements are now being made to give the vendor and purchaser of logs a copy of a detailed scale bill showing the number of logs of each diameter length and species. It was originally intended to number each log and to show in the scale bill the scaled contents for each log, but this plan was given up because of the impossibility of rolling the logs in the tight booms.

Mill tests will be conducted whenever opportunity offers throughout the year, the logs being scaled, then put through the mill and the scale tested out by a tally of the lumber or shingles produced. Several such tests have already been carried on in the shingle mills. These tests are valuable in enabling the scalers to keep informed as to the lumber or shingle contents of different classes of logs.

East of the Cascades a different system of handling logs necessitates a different system of scaling. On the Coast where annually over a billion feet of logs are gathered in the harbors of Vancouver, Victoria, the Fraser River and two or three other points, a small staff of scalers can do the work. In the Interior there is no such concentration of logs. There are very few instances where any two of the 140 mills operating are located close enough together to enable one scaler to do the work for more than one mill. Very few of the mills in the Interior operate the year around; consequently there is no employment of scaelrs the year around unless they take up work of a different nature, except in a few cases where a scaler can secure a position bush scaling in the winter and scaling in a mill in the summer. For this reason, and because of the large number of scalers required to supply the 140 mills and the short scaling season, it is inadvisable for the Government to engage sufficient men to do the scaling. Control of the scaling is maintained by awarding scalers' licences to scalers who have had the necessary experience, who are endorsed by lumber companies and who pass a written and practical examination conducted by the Forest Branch. Each operator in timber is required to employ a licensed scaler who reports the quantity cut direct to the District Forester. A further check is provided by the employment of a check scaler in each Forest District, whose duty it is to visit all mills in operation where licensed scalers are working, scale with them, instruct them in their duties and scale one or two days after them to determine how they are working.

The Doyle rule has been the only rule used in the southeastern portion of the Province. After December 31st this year the B. C. rule will be used throughout the Province.

Grading the Logs

No attempt is made to grade logs east of the Cascades, west of the Cascades a large proportion of the logs are graded by the scalers according to the following log grade rules established by the Forest Branch this year:—

Cedar:—

No. 1. Logs 16 feet and over in length, 20 inches and over in diameter, that will cut 50 per cent or over of their scaled contents in clear inch lumber; provided that in cases of split timber the foregoing diameter shall not apply as the minimum diameter for this grade.

No. 2. Shingle grade—Logs not less than 16 inches in diameter and not less than 16 feet in length that are better than No. 3 grade, but do not grade No. 1.

No. 3. Rough logs or tops suitable only for shiplap or dimension.

Culls. Logs lower in grade than No. 3 shall be classed as culls.

Fir:—

No. 1. Logs suitable for flooring, reasonably straight, not less than 20 feet long, not less than 30 inches in diameter, clear, free from such defects as would impair the value for clear lumber.

No. 2. Logs not less than 14 inches in diameter, not over 24 feet long or not less than 12 inches in diameter, and over 24 feet, sound, reasonably straight, free from rotten knots or bunch-knots, and the grain straight enough to ensure strength.

No. 3. Logs having visible defects, such as bad crooks, bad knots, or other defects that would impair the value and lower the grade of lumber below merchantable.

Culls. Logs lower in grade than No. 3 shall be classed as culls.

Spruce, pine and cottonwood:—

No. 1. Logs 12 feet and over in length, 30 inches in diameter and over up to 32 feet long, 24 inches if over 32 feet long, reasonably straight, clear, free from such defects as would impair the value of clear lumber.

No. 2. Logs not less than 14 inches in diameter and not over 24 feet long, sound, reasonably straight, free from rotten knots or bunch-knots, and the grain straight enough to ensure strength.

No. 3. Logs having visible defects, such as bad crooks, bad knots, or other defects that would lower the grade of lumber below merchantable.

Culls. Logs lower in grade than No. 3 shall be classed as culls.

Diameter measurements, wherever referred to in this schedule, shall be taken at the small end of the log.

After December 31st of this year all logs west of the Cascades will be graded according to these rules.

Grading Service Valuable to the Mills

Where mills depend upon the purchase of logs in the open market to the same extent as they do at present on the Coast the grading of the logs is a valued service. It enables the purchaser, upon the receipt of a scale bill, to determine whether a boom of logs fills his requirements or not. Manufacturers of clear cedar lumber cut as many No. 1 cedar logs as possible, shingle manufacturers are in the market for No. 2 logs, mills with orders for low grade material can afford to buy No. 3. The grading also affords a definite basis upon which to deal with the logger, prices being fixed for each grade when the sale is made. It is left to the Forest Branch to determine the quantity of each grade in the boom. Fir and spruce logs have been graded for several years. Cedar grades were not established until this year.

Twenty-seven years ago a law was passed in British Columbia reserving against sale or settlement all land west of the Cascade Mountains averaging over 8,000 feet of timber per acre, and all land east of the Cascades averaging over 5,000 feet of timber per acre. The purpose of this law was to reserve this timber land for administration under forest laws which would ensure that the full profit from the sale

of timber, as well as permanent control of the timber, should be retained for the Government.

The administration of such a law requires field examination to ensure that timberlands are not taken up wrongfully. The field examination is supplied by the Forest Branch. In the Coast District all homestead applications and applications for land purchase are referred to the Forest Branch for examination before action is taken by the Lands Department. In this way the double purpose is served of restricting settlement to lands suitable for agriculture and of preventing the alienation of valuable timber. There are now several field parties of cruisers engaged in this work on Vancouver Island and on the mainland coast between the International Boundary and Cape Caution. This cruising of the remaining public timber is showing plainly, that even in the Coast Districts, where the largest areas of leases and licences have been taken up, there is still a great amount of merchantable timber belonging to the Government.

Upon the expiry of timber licences or leases the land included remains under forest reserve. As the Forest Branch has no desire to keep land under reserve which may be more valuable for other purposes, all such lands are examined and if agricultural are opened for settlement promptly.

In the Northern Interior a similar policy is being followed to protect the large bodies of merchantable timber, now belonging to the Government, which are known to exist. The areas which have been reported as timberland are being examined by special forest reconnaissance parties. The results of this reconnaissance will be to place under forest reserve the lands carrying merchantable timber and the lands unfit for agriculture. Districts into which settlers and land lookers are now going are being examined ahead of settlement with the same purpose in mind.

The advantages of such a policy are self evident. The timber land, which is the chief source of revenue, is protected from spoilation by private individuals under guise of settlement and from the fire hazard which settlement in timber lands always causes. The timber lands, thus held under the control of the Government in compact bodies, are available for any industries which may now, or in the future be seeking new timber supplies. The whole revenue from the timber then goes to the public. Another advantage is the restriction of settlement to agricultural lands. Settlers coming from new countries in a hurry to locate on land are not always in a position to determine what is agricultural and what is not, and very often take up land which a resident of the country knows is unfit for agricultural purposes. The experience of the older provinces has been that settlement on non-agricultural land is a direct loss of wealth to the community. The settler on non-agricultural land exhausts his capital, wastes his time and produces non profits; the only possible crop for such land is timber. For this reason an endeavor is being made to guide settlement in British Columbia.

The examination of timber areas tributary to the Grand Trunk Pacific has shown the presence of thousands of square miles of spruce timber equal if not superior in quality to the spruce timber of Ontario and Quebec. This timber is now accessible and affords a first class supply of raw material for pulp or lumber. There is at present practically no timber indutsry drawing upon the resources of this new region. The completion of the Grand Trunk Pacific and the influx of population are certain to deveolp the timber industry. New mills are now building and several enquiries are before the Forest Branch for the purchase of stumpage.

Ascertaining the Timber Wealth of the Province

There is no definite knowledge of the quantity of timber in British Columbia. The most generally accepted estimate is 350 billion feet, over one-half the total estimated for Canada. It is important that dependable knowledge of the forest resources and forest possibilities of the Province should precede the development of forest policies.

At the suggestion of the Forest Branch the Commission of Conservation has placed two experienced men in the field mapping and estimating the timber resources of British Columbia. The co-operation which is being secured from lumbermen who furnish copies of maps and estimates of their holdings, from the Dominion Government and from the Canadian Pacific Railway, is aiding greatly in the survey. The Forest Branch is making available all knowledge which has been secured from every source. The publication of this report in one or two years will show the true character of Western Canada's timber supply.

Forest conditions in British Columbia have decreed that forestry shall, in the beginning, be restricted to forest protection, a business admistration of the timber resource and a reservation for timber purposes of heavily timbered, or non-agricultural land. As logging operations increase, and stumpage becomes more valuable the regulating of logging operations on non-agricultural lands, so as to encourage a valuable natural reproduction of forest trees, will become more necessary and more possible. Before such regulations can be attempted a thorough knowledge must be secured, both of the conditions affecting the natural reproduction of the various commercial species, and of the cost and effect of such regulations of logging operations as may be expected to favor different species. It is first necessary to know what theoretically is the method to pursue to secure the reproduction of the most valuable timber species. Then it is just as necessary to give careful study to the cheapest possible method of producing, during the logging operations, the natural conditions which the different species desire for this development. The habits and requirements of trees vary in different regions. A start is now being made in the study of the reproduction requirements of the valuable timber species of British Columbia. Through a co-operative arrangement with the Dominion Commission of Conservation, Dr. Howe of the Staff of the University of Toronto Forest School, is taking up, this summer, on the Coast, a study of the conditions affecting the coming in of Douglas fir after logging operations. Douglas fir is the most valuable Coast species. It is important that a Douglas fir forest should follow on every logging operation where Douglas fir will thrive. It is believed that a satisfactory reproduction can be secured by a thorough broad cast burning of slash. There may be other conditions affecting the reproduction of this species which will be determined by this season's work.

As the knowledge of the habits of different species is gained definitely, clauses will be inserted in the timber sale contracts issued by the Forest Branch which will require the ground, when logged over, to be left in a condition favorable to the most important species occurring on the tract. As rapidly as is justified by the results of this policy on timber sales, modest regulations seeking the perpetuation of valuable forest will be put into effect on lands held by other forms of tenure.

This rough resume aims to give merely an outline of the first steps being taken to put forest administration upon a sound basis in British Columbia. The prime essentials are considered to be adequate forest protection, and efficient forest administration. Upon these, with a further knowledge of the forest interests, forest conditions and forest industries of the Province will be built a policy aiming more accurately at the perpetuation of the forest.

How the War Affects U. S. Trade

The possible result of the war, in connnection with trade in the United States is analysed by the American Lumberman as follows: There will be a serious drain upon the financial resources of Europe and a severe liquidation of American securities held abroad. There will be heavy withdrawals of gold from this country, which have already begun, and how far the new currency system of this country will be able to replace coin with reserve bank currency, supported by the credit of the Government, remains to be seen. The farmers of Europe are called upon to reconvert their plow shares into swords and are being mustered from grain fields ripe for the harvest. The bountiful crops of the United States will be needed to feed soldiers, and there will be an increase in prices of foodstuffs which will give to the crops of 1914 a materially enhanced value and make them a larger national asset. In as far, however, as they enter into domestic consumption this will be an added tax upon the ultimate consumer and only the proportion going to export will enhance the nation's wealth.

There will of course be a serious interference with the peace demand of Europe for our wares that will be only partly compensated by the needs of war, and particularly along certain lines. An analysis of our export figures may be of interest in this direction. It shows that for the eleven months ending May, 1913, the United States exported to those European countries which will be more or less directly concerned in hostilities $1,095,785,562 worth of merchandise. To the rest of Europe our exports were $300,402,373; to the rest of the world, $811,319,169. It is probable that our exports to the neutral portion of Europe would be seriously ditsurbed in the event of war. Much of our merchandise, however, sent to England, Germany and France is redistributed to other than European countries and our direct export trade to these other countries would probably be enhanced should the three nations in question become so involved in conflict as to shut off their commerce upon the seas.

As to the products of our forests, there would be some requirements for military operations, but by no means compensatory for the vast decrease in building and manufactures in European countries which active war would cause. For the eleven months ending May our exports to France, Germany, Italy and the United Kingdom amounted to $5,568,770 in timber and $15,956,704 in sawn lumber. To the rest of Europe our exports were respectively $1,518,730 and $5,877,632. To the rest of the world we sold hewn, sawn and round timber aggregating $1,112,256 and lumber totalling $31,215,990. Europe has therefore taken about 40 per cent. of our exported sawn lumber and over 85 per cent. of the material exported in the forms of logs and sawn or hewn timber. Our trade in furniture and other wooden pro-

ducts will not be so seriously involved, as our sales to the four countries over which the war cloud hangs heaviest amounted to $641,834, and to the rest of Europe, $633,660, whereas the rest of the world purchased furniture in these eleven months amounting to $4,943,351.

Another feature that will directly influence business in the United States is the drain of foreigners liable to military duty. Austria and Servia have both furnished large amounts of the labor used, particularly in mining, but also in factories and in sections of the country engaged to some extent in various activities of lumber manufacture. There is already a movement of these foreigners toward the father country, responding to the call for reservists. If Russia, England, Germany and France should require their full fighting strength there will be further migration from this country, which will make labor scarce and undoubtedly have some effect in increasing wages.

War is always a world calamity and the entire world must to some extent suffer the resulting waste and loss. In the United States, however, the depression caused by European war would probably be a later effect except in the financial world. In merchandising and manufacturing the earlier result might for some time be increased activity, although hampered to a considerable extent by contraction of the nation's capital resources.

Fortunately, war in Europe is linked with prospects of an early peace in Mexico, which will mean a large demand for lumber for many purposes of rehabilitation and resumption of business activities.

B.C. Lumber Trade Troubles Analyzed

Are Short Sighted Business Ideals Creating or Magnifying To-day's Depression? —A Silver Lining Visible to Those Who Look For It

Editor Canada Lumberman: Vancouver, B.C., July 20.

In your statistical issue of February last, I made certain predictions regarding the outlook for the lumber business in British Columbia during the present year, and I am now glad to be able to say that, while there was more optimism shown in those predictions than some were willing to admit was warranted by reading the signs of the times, yet, as I stand to-day, half-way along the trail as it were, with half the time covered by those predictions expired, and view the year's business both past and prospective, I feel that I have nothing to recall from what I said at that time. It is true, as some will doubtless state, that business is not as good as we would like to see it, but, as a matter of fact, this same thing has been felt by some to be true at almost any time in the history of the lumber business in British Columbia, and I think the day is yet far distant when we will all be satisfied. This temporary season of inactivity from which we are just now emerging, following as it did a season of unparalleled activity, naturally makes things seem slow in every line, and the only reason why the lumber business seems harder hit than others is, that it is the chief industry, and even though it did seem rather dark for a time, yet things never were so bad that they might have been worse.

Is There a Silver Lining?

Despite the optimism shown by such writers as yours truly, however, there are some who persist in refusing to see any silver lining under the cloud which has been overshadowing us, and of course, to such I can only quote the words of one who is greater and wiser than I, and who said, "According to your faith be it unto you." It is true that none of the manufacturers of British Columbia are likely to be over-burdened with profits this year, but it is a gratifying indication, to see that, even in times like these, when so many are crying out in pessimistic phrases, few lumbermen have shown a willingness to lie down and "die." Did it ever occur to you, my friend in the trade, that when you go about shouting blue ruin you are doing your part to bring about exactly that state of affairs? Nobody will ever enter heaven by proclaiming certain victory for the devil, neither will we ever enjoy the prosperity which is within our reach unless we quit crying ruin. You might paint a parrot in such a way as to imitate any other bird that you saw fit, and yet the moment it opens its mouth you know it is a parrot. It is the same with many lumbermen if you will pardon me for saying it. They have become so accustomed to viewing things through pessimistic lenses that their eyes have got a slant that way and they cannot see otherwise. They hear someone talk ruin and so they talk ruin. Such men are not given to using moderation in their statements either, but will tell you that the mills in British Columbia never made any money. They will state that they are in the grip of the banks, and are compelled to operate, and that they are only standing off the "evil day." I have heard that story for the past twelve years, and while in certain instances there may have been some truth in it, yet some of those same mills which were pointed out to me then are still doing business. I have come to the conclusion that they must be fond of losing money, and also that our banks must be decidedly "easy" to supply it to them.

Let us not emulate the parrot any longer. There is a considerable volume of business being handled whether you are willing to admit it or not. I think I hear someone remark that any business which is now being transacted is taken at such prices that the greater the volume the greater the loss. This sounds like our friend "poll" again, but if it is not, then I would ask who is to blame for this? Are you ready to admit that the buyer is smarter than the seller, or is it that you are so anxious to grab business from a competitor that you are willing to handle it for nothing or worse? We all know of course, that the lumber business is suffering from some organic weakness which it seems hard to cure, but as a certain number of fleas are said to be good for a dog, so it may be that these weaknesses are necessary to the well-being of the lumber business. Who knows but that without them it might become too prosperous and people would then leave every other pursuit to engage therein? But seriously, when I see a fellow grab $18.00 business at a $12.00 or $13.00 price, and other business in like proportion, only to discover the intricacies of the order and the consequent additional cost thereof after he has committed himself, I can only pity him. He probably would do better if he understood, but it must be remembered that the lumbering industry has grown and developed very rapidly, and many have been drafted into the ranks who are not lumbermen, and without the requisite of practicability in any profession, men sometimes fit their positions about as well as a round peg in a square hole. For these things, and peculiar as it may seem they are by no means uncommon. The lumber business has to suffer, and to-day, practically stands condemned by some to the nethermost depths of incompatibility, when in reality it is not the fault of the business at all, but is rather the fault of those engaged therein. Most of the evils which we meet in life are of our own making, and yet strange as it is true, we are seldom able to see it that way. I tell you friends that he who condemns the lumber business does wrong. I know of no more worthy calling in which to be found engaged, nor do I know of one more remunerative than this could be made; but let me qualify this statement by saying that, to make it a sound proposition, there are certain positions which should be filled only by practical men, which too often are not so filled.

Trade Ethics a Large Factor

There is another evil which is particularly troublesome at the present time, and which is, to some extent, sapping the life of the lumber business, and that may be properly named the "tricks of trade." I believe that nearly every firm doing business to-day knows what I refer to, for who is there who can say that their shipments are as satisfactory to-day as they were two years ago; and yet are you not exercising greater care now than you did then? The buyer is taking advantage of your natural inclination (at such times as those from which we are emerging) to not break any ties which bind your trade relationship, and so he presses his claims for rebates upon the pretence of some alleged defect, or shortage. In most cases the mill is not in a position to investigate, and so the claim is allowed; but is it honest? Just as all kinds of complications set in upon a man whose physical strength is exhausted, so it seems in the lumber business, and while there are many millions of dollars invested in the business in this province, yet with all this monetary strength, we are, if not dying from the effects of our inability to cope with the situation, surely showing such signs of weakness that the attacking enemy which is ever crouched upon our trail watching for an opportunity, now springs upon us to grab that which he would not dare to ask for, if we only had strength and sufficient business acumen to stand together and demand our rights. What is good for one is good for all who are similarly engaged, and yet, while the trail has been well and truly blazed in days gone by in other parts of the Dominion, yet we in British Columbia seem to be constantly watching for some by-way upon which to run off and lose ourselves. It may be that everybody wishes to be a leader, and that none wish to follow, or it may be lack of respect for the other fellow's views that causes our inability to get together and protect our business. I believe though, that it is nothing more nor less that shortsighted greed that sways us to the extremity of grabbing, at a loss, that which we could just as well have at a profit. There is wisdom in council; but the man who stands ready to betray his own interests along with those of his fellow man to satisfy a blind greed will never find it.

While I have dealt only with the lumber interests in this article, yet I do not wish the shingle interests to feel slighted, but wish to assure them that they are welcome to apply the words written herein to themselves just as far as they wish, and in conclusion I will say to all that it is time to awaken up, and if necessary, pinch ourselves to see if we are alive, for surely we have been asleep to our interests long enough.—E. H. Newton.

The Red Cedar Shingle Industry of B.C.

Economic and Industrial Conditions Giving the Western Province a Leading Place in this Great Industry

By C. W. Scarff.

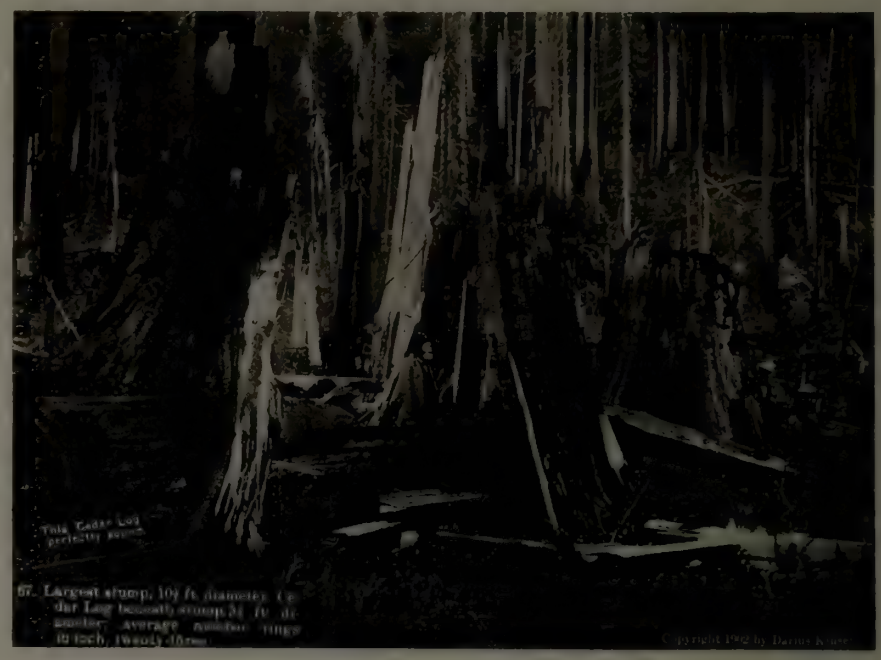
The Shingle Packer.

British Columbia is now the home of the Red Cedar industry on the Pacific Coast. This may sound more like a prophecy than a statement of truth in view of the fact that the States of Washington and Oregon are credited with three-fourths of all the shingles made on the coast, which means the bulk of all the shingles made in North America, but it must be remembered that great industries have their rise and fall, their coming and going, the same sa individuals that outgrow their limitations in one section, and, therefore, move bag and baggage to a newer and less exploited section of the country. Thus we see these great industries starting in British Columbia financed and equipped by men from the Eastern Provinces, the United States and from over seas. The shingle business being a bi-product industry, thrives best where the raw material is abundant and low-priced. The lumberman and logger goes after the standing timber, but the shingle manufacturer follows as a gleaner follows the harvest of grain.

There is necessarily a great waste left in the trail of the western logger, as may be seen in one of the accompanying illustrations of logged-off land. This picture was taken after we finished logging a tract and after a fire had gone over it destroying and eliminating small limbs and underbrush. This shows about the average conditions that bolt cutters have to contend with. Burned over logged-off land presents a desolate, hopeless picture to any one not acquainted with its possibilities, but the shingle manufacturer here on the coast sees a fortune in it. I have known instances where the shingle mills cleaned up more money from the manufacture of shingles taken from the scavengered stock of snags, dead trees and fallen logs, than the original lumberman who logged the timber a few years ago during the period of depression.

An Age Defying Timber

Large old-growth cedar, if sound, will withstand the elements, such as fire, wind and rain for centuries. Windfalls and broken logs covered with moss and ferns remain sound and can be cut into shingle bolts hundreds of years after the trees are fallen. This statement may seem overdrawn to many of your subscribers but it is perfectly true, as may be seen in picture from another of the illustrations.



Embalmed by nature—Sound cedar log pinned to ground by a large stump.

Here is an instance where a mammoth cedar log laid prone on the ground for a long number of years, while the moss and decayed leaves were forming a seed-bed in which the tiny cedar sapling took root and grew, finally sending its roots down around the trunk of the mother tree into virgin soil, and then to grow year by year, adding ring after ring of new growth, until the record shown on the face of the stumps proves beyond doubt that these trees had stood guard over the prostrate form of the mother tree for five hundred to seven hundred years. The logs, taken from these stumps, were cut and hauled away about 12 years ago, and since that time bolt cutters have cut the fallen tree into shingle bolts, bright, clean, clear stock that will make shingles equal in every way to green cut bolts. This picture was not taken on my own land but was kindly contributed by Mr. Darius Kinsey, who found this rare example in Skagit County, Washington, near Sedro-Woolley, while out in the woods photographing timber views. I have seen many instances of large trees growing astride of fallen cedars but this is the most remarkable illustration I have ever seen.

Not all of our shingles are made from the gleanings of logged-off land. Some mills buy their cedar standing, and cut it into bolts or blocks using the whole tree for shingle stock, but this cannot usually be done on account of the high-price of cedar logs. Some lumber

A combination Lumber and Shingle Mill.

Logged-off land—The shingle maker's harvest field.

mills sort their cedar logs, cutting all the clear stock into boards and bevel edge siding, throwing all the poorer grades of the log into shingle stock. Our shingle mill shown in one of the illustrations is what we call a "combination mill," one that cuts both logs and bolts. The logs come out of the water over a log slip on to the saw carriage and are there cut into lumber, while the shingle bolts are drawn up by endless chain in another slip to the cut-off saw, where the bolts are reduced to shingle length, trimmed by the "knee bolter," thus getting rid of bark, sap and uneven surfaces before passing on to the shingle sawyer. The work of preparing the blocks for the sawyer is all done by day labor and does not require as much skill in operating as it does physical strength. The sawyers and packers, however, are paid by the "thousand shingles" as cut, and this operates as an incentive to keep busy. A good sawyer can cut from 25,000 to 35,000 shingles in ten hours on an upright machine.

In respect to the cost of producing shingles in British Columbia, much, of course, depends on the location of the mill and the experience and ability of the owners. During the past seven years of depression in the lumber business, the shingle men of British Columbia have nearly all made good, while in the States there have been many failures and shut-downs. We make a better shingle—better timber to work with and better-made than the States shingle. Sixty per cent of Washington shingles are what the trade terms "Star A Star," a 6-2-16 shingle, more or less imperfect above the weather line of exposure when laid. Here we make no such brand. Practically all shingles sent to the market from here are clear of knots and imperfections and we are building up an expanding trade on Eurekas and Perfections—longer, thicker shingles than the ordinary Clears. Many of our mills employ Oriental labor at a lower wage than white labor, but as that is a mooted question of economy and a very doubtful question of policy, I will pass it without comment.

There are several causes that lead up to the present activity in the shingle industry in British Columbia. For several years the lumber and shingle business has been in a more or less unsatisfactory condition caused by prevailing low prices. Washington and Oregon, operating hundreds of shingle mills, many of them double shift, day and night, turned out a vast number of shingles thereby overproducing, considering the demand. British Columbia mills, comparatively few in number as yet, had very little market outside the Canadian provinces. The Aldrich-Payne Tariff of 50c. per thousand shingles operated as a barrier, well nigh prohibitive to building up any considerable trade with the United States. The general tone of business of all kinds was discouraging, but late in 1913 the American Congress removed the duty on lumber and shingles entering from Canadian ports. This gave the Canadian manufacturer an open door into a much wider market than he had hitherto enjoyed. American shingle manufacturers, who were running short of cedar timber, naturally went across the line into British Columbia where they could find an abundance of raw material at a reasonable price. British Columbia is a new province and scarcely a start has yet been made in removing her vast forests, and, consequently, better locations can be had for erection of mills than in the older communities of Washington and Oregon where the timber has mostly been cut away several miles back from railroad or water front. To sum up briefly, the situation seems to be as follows:

Shingle manufacturers in the States are confronted with a decreasing supply of shingle timber at high stumpage rates. Water shipments through the Panama Canal from American ports are controlled by American shipping at higher transportation rates than tramp steamer-competition on this side the line. British Columbia shingle manufacturers have sufficient supply of excellent cedar along the railroads and water fronts, at low stumpage cost, to run their mills for a long term of years, and it seems they now have the whole world for a market in which to exploit their goods.

Canada's Lumber Production During 1913

Bulletin Prepared by Forestry Branch Indicates that Output has Passed its Highest Point—B. C. Now the Leading Producer

A bulletin giving statistics of the production of lumber, lath and shingles by 2,187 mills operating in Canada during the calendar year 1913 is being prepared by the Forest Branch of the Department of the Interior, Ottawa. The figures for 1912, which were gathered from 2,558 mills are being included for comparison. The bulletin will state that the total value of lumber, square timber, lath and shingles produced in Canada in 1913 was $70,644,362, the separate items being, lumber, 3,816,642,000 feet board measure, valued at $65,796,438; lath, 739,678,000 pieces valued at $1,783,283; and shingles, 1,485,279,000, valued at $3,064,641.

Lumber Production Decreased

The total production of lumber in Canada in 1913 was a decrease of 13.1 per cent from that of 1912. The 1912 production was a decrease of 10.7 per cent from that of 1911. It is evident, the bulletin says, that the climax has been passed and that the production is now declining at about the same rate as it increased up to 1911. The cut of lumber in 1911 was 4,918,202,000 feet board measure valued at $69,475,784. The climax of production in the United States was reached in 1909 when 48,112 mills cut 44,509,761,000 feet of lumber or about nine times as much as was produced in Canada in the climax year of 1911.

Canada cut in 1913 a total of 3,816,642,000 feet board measure of lumber valued at $65,796,438. The cut in Ontario decreased by 20.5 per cent while that of British Columbia decreased only 10.7 per cent. This resulted in a change of relative position, which puts British Columbia at the head of the provinces in the production of lumber, and Ontario, which has headed the list in the past, falls back to second place. An increase in production in Manitoba of over 82 per cent brings this province up to seventh place and drops Alberta to eighth place.

Reductions in the cut of lumber are to be noted in every province except Manitoba, the greatest reduction taking place in Saskatchewan.

The average price of lumber at the mill throughout Canada increased by $1.41, increasing in British Columbia, Ontario, Quebec and New Brunswick, and decreasing in Nova Scotia, Manitoba, Alberta and Prince Edward Island. The greatest increase in price $4.08 took place in Ontario.

While spruce still formed about a third of the total production some important changes have taken place in the relative order of the different kinds of wood cut. The cut of white pine decreased by over a quarter while that of Douglas fir decreased by only 10.9 per cent. Douglas fir consequently moved up to second place on the list.

The cut of red pine increased by 1.4 per cent while that of cedar decreased by 35.2 per cent. Among the ten most important woods the greatest decrease occurred in the case of cedar and the greatest increase in the case of tamarack. Among the hardwoods the changes in relative position are more frequent, as those woods, with a few exceptions, are cut from isolated stands and lands that have been lumbered over for pine, spruce and hemlock in the past. The supply of such woods is very variable from year to year.

Willow and ironwood which were cut in 1912 were not reported in 1913. Sassafras which has not been reported since 1911 was cut in 1913. Some of these woods, black gum, tulip, sycamore and sassafras are cut occasionally in very limited quantities in southwestern Ontario, mostly on the Niagara Peninsula and along the north shore of Lake Erie. They belong rightly to the hardwood forest of the central United States and cannot be considered as typical Canadian species, as their range is so restricted and their occurrence so comparatively rare in Canada.

The first five woods on the list increased in price at the mill from 1912 to 1913. Out of the total of twenty-seven, only nine were reported at a lower price than in 1912.

A Drop in the Output of Shingles

The decrease in the shingle cut in Canada from 1912 to 1913 was 5.9 per cent, as compared to 14.1 per cent from 1911 to 1912. The cut decreased in British Columbia, Ontario, Nova Scotia, and Prince Edward Island, and increased in Quebec, New Brunswick and Manitoba. Alberta did not report any production in 1913, but Saskatchewan reported a small quantity.

British Columbia produces more shingles than any other province and in 1913 all these were made from one species, western red cedar. In Quebec, over ninety-seven per cent of the shingles were made of eastern white cedar. Other less important shingle woods in Quebec were spruce, white pine, balsam fir, jack pine, hemlock and aspen poplar, named in their order of importance.

In New Brunswick, cedar forms 98 per cent of the total, the remainder being made up of spruce, balsam fir, hemlock, white pine, red pine and aspen poplar.

Ontario manufactures a large proportion of her shingles from white pine although cedar heads the list in this province. Shingles are also made in Ontario of hemlock, red pine, spruce, poplar, balsam fir, butternut and jack pine.

In the three Prairie provinces, as well as in Nova Scotia and Prince Edward Island where cedar is practically unknown, the shingles are made for the most part of spruce, with smaller quantities of balsam fir and jack pine in the west, and cedar, balsam fir, hemlock,

white pine, jack pine, aspen and birch in the two Maritime provinces mentioned.

With cedar forming 93.7 per cent of the total production of shingles in Canada, the other woods on the list are of little relative importance. Of the total for cedar, 748,626,000 shingles were made from eastern white cedar, as compared with 643,484,000 from western red cedar from British Columbia.

The other woods on the list are used because they are cheap and abundant in the region where they are manufactured, or because they form a part of the mill waste which can be profitably manufactured into shingles. In very few cases are they chosen on account of any quality they possess that fits them for shingle woods. Wherever cedar can be obtained in quantity in Canada it has been, and probably will be, the favorite material for this purpose.

Lath Production Reduced

The decrease in lath production in Canada from 1912 to 1913 was 17.7 per cent , as compared with 6.9 per cent from 1911 to 1912. Laths are usually a by-product to the lumber industry insomuch that they are almost invariably made from slabs, edgings and other material that would otherwise be burned as waste in the sawmills. Changes from year to year in the production of lath follow those in lumber production very closely.

Saw mills in Ontario are able to make a closer utilization of their material than those in British Columbia and consequently produce more lath, although the British Columbia mills produced more lumber in 1913.

The relative importance of the different kinds of wood used in the manufacture of lath is very similar to that of the woods sawn into lumber. Spruce lath are made in greater quantities in New Brunswick where spruce is the most important lumber species. Over ninety per cent of the white pine lath are made in Ontario.

Changes Required in B. C. Business

Representative Lumbermen to Interview Sir Geo. E. Foster —Mr. Henry Pearce Outlines Situation

Arrangements have been made by R. F. Green M.P. for Kootenay, for a conference between the lumbering interests of British Columbia and Sir George Foster, minister of trade and commerce, the date to fall during the forthcoming visit to the province of the minister, who will be touring the west as a member of the Dominions Royal Commission. Conditions affecting the lumbering industry in British Columbia have been the reverse of satisfactory, the financial depression having had as one direct effect the serious curtailment of orders from the prairie provinces, due to the cessation of building operations.

In an interview on the proposed conference Mr. Henry Pearce spoke recently of the present status of British Columbia timber in the markets of the wold.

"Mr. R. F. Green, M.P., I understand, has specifically suggested the appointment of a number of commissioners to be sent to the different importing centres to try to stimuulate a demand for Canadian lumber," said Mr. Pearce.

"During the last few months I have been in direct communication with some of the leading important lumber merchants throughout the world. I have found that although it is, of course, urgent that the different importing countries should have a full knowledge of the merits of British Columbia timber, it is more important, in fact imperative, that the Government should endeavor to solve the question as to how the British Columbia exporter can finance his export trade. If the freights are going to be put through San Francisco, financing put through American banks and cargoes arranged by American brokers, Canada will never hold the position in the lumber world she should have. Some action must be taken immediately, as statistics will show that we are still going back every month, and soon it will be as difficult to transfer the lumber trade from American ports to British Columbia as it would be to transfer the cotton trade from Manchester to Southampton.

"The appointment of grading and tallying inspectors who will give a certificate over the seal of the Department of Lands, is an all important first step, and it would induce the banks to finance up to the full values of the cargoes.

"Under present conditions, English houses are generally prepared to accept drafts for 75 per cent. value of cargo; this would mean that for a broker to make a gross commission of $25,000 a year, selling $1,000,000 worth of timber at 2½ per cent. commission, he would require a working capital of $250,000.

"Immediately the export trade is put on a commercial basis the banks in British Columbia would only be too eager to compete for the purchase of drafts at full value. It is Canadian commerce we want to establish, not only Canadian trade. The word 'trade' comes from the old English 'trod,' and was used in the sense of a beaten track—hence trade winds, the wind which always blows in one course. The word 'commerce' is from 'cum'—together and 'merx'—merchandise, in its general acceptation the international traffic in goods or what constitutes a foreign trade of all countries as distinct from the commercial trade. The policy of Sir Richard McBride has given us railways, Nature has created seaboards, and timber, as the basis of British Columbia commerce, is going to make a nation within a nation. The position must be considered from this commercial basis, not from a political or 'village pump' point of view.

"The demand for Canadian timber is not going to be stimulated by commissioners going abroad and simply talking the merits of Canadian timber; there is important diplomatic work to be done by men who are thoroughly conversant with local conditions and have the initiative brain to evolve a scheme whereby Canada can deal direct with foreign buyers on most favorable conditions.

"The Canadian Trade Commissioners have, during the last few months, been making exhaustive inquiries into this subject, based on their personal knowledge of the countries to which they confine their reports.

"These commissioners are all agreed that B. C. is not getting a small percentage of the export trade it should have. They can offer no opinion as to why this trade is not forthcoming as they all assume, quite rightly, that the Canadian lumberman should not be inferior in resource, intelligence or energy to his competitors the other side of the line.

"For instance," said Mr. Pearce, "Mr. H. R. Pousette reports as Canadian Trade Commissioner in South America, under date June 1: 'Out of a list of 125 vessels chartered a year ago, only two cargoes were shown as originating in British Columbia, the others were from Puget Sound or Columbia River ports.'

"I have before me a letter from one of the largest importers in Australia, dated May 13, 1914, an extract from which says: 'Some time back members of the trade were prejudiced against Columbia River Oregon but this is dying out!'

"If we can only tell importing countries of the world that Douglas fir is not Columbia River Oregon, but timber grown in British Columbia, and can be shipped, inspected and passed by the British Columbia Government, financed by British banks, sent in British bottoms, and sold through British firms, we are starting that B. C. commerce which we hope will be such a factor in making British Columbia's prosperity in the near future.

"To anyone who has not considered the subject, it might be argued that the lumberman should be able to market his own goods without the assistance of the Government, but it has to be considered that Canada is a young country. It is in a state of development, whereas America had developed a generation ago. The Americans have now such a grip of the export trade that it would be impossible for an individual man or an individual corporation to enter into competition successfully. It would not be possible for the lumber merchants and timber owners to enter into any kind of 'combine,' for the reason that such a combine must of necessity include shipowners, lumber brokers and freight speculators. If, however, the B. C. and Dominion Governments were to support the lumber industry officially by establishing an Inspection Bureau, such as I suggested, and would then go further by sending an official representative to the different trade centres, for the purpose of interviewing shipowners, banks, merchants, and other people interested in the lumber trade, who would send his reports and suggestions both to the Governments and the Lumbermen's Associations, the lumber trade would have the necessary impetus to enable it to enter into competition for the world's demands. The expence necessary in sending a competent man abroad would be very small, and the diversion of a few of the cargoes mentioned in Mr. Pousette's report would indirectly bring to Canada in actual profits more than any expense that could possibly be entailed.

"The Canadian Trade Commissioners have undoubtedly done very good work in getting particulars of the lumber industry in their several countries, but it cannot be expected from them that they should have the necessary business qualifications, the local knowledge of the lumber industry, and the commercial traveler's instinct that a qualified man should have who would be sent abroad by the Canadian Government to establish commercial relations with the best of lumber importers. It is not a question of British Columbia trying to resuscitate a dying industry, that of exporting lumber. We want to tell the world that, anticipating the opening of the Panama Canal, we have opened up the country with railways, built and equipped ports, passed laws this year regulating the cutting of timber, whereby the country has an actual financial interest in its timber wealth, opened a department whereby all exports of timber will be inspected by the Government, and are now in a financial position to export our manufactured timber.

"It is a very important period in British Columbia's commercial history," concluded Mr. Pearce, "and the manner in which the export lumber question is tackled during the present year must have a direct result on its future prosperity."

Port Moody's Fine New Shingle Plant

Robert McNair Shingle Company Now Operating One of the Most Up-to-date Mills on the Coast and Conducting Their Own Logging

At Port Moody, B.C., the Robert McNair Shingle Company, of Vancouver, have commenced operating their recently completed shingle mill, which they consider to be about the finest shingle mill on the Pacific Coast. They have opened up their own logging canps and are taking out timber from the "virgin forest, great big green healthy cedars of the finest quality in the land," and they expect to turn out some shingles which will "make the Ontario dealers rejoice." In their logging camps they have introduced some important features. For instance, instead of erecting one long bunk house, they have cabins which accommodate four men each. This they consider to be more sanitary, and the nen take much more interest in keeping them tidy. Moreover, the men do not have to mix indiscriminately in a bunk house with others for whom they have no liking.

Referring to the shingle mill and dry kilns, which are shown in one of the accompanying illustrations, the company state that the picture shows on the left the conveyors to the refuse burners. The first small building is the blacksnith shop. The next building is the boiler house, which is of entirely fireproof construction, being built on a concrete base with steel frame and corrugated iron covering. The power plant consists of two 72 in. by 18 ft. boilers set in "Dutch ovens." The boilers were built by the Vulcan Iron Works of New-Westminster, B.C. The engines are a pair of 16 x 18 Waterous engines. The next building shown in the illustration is the shingle mill. This is a 12-machine mill, laid out in two parallel rows with block conveyor between. The shingle bolts are cut up by means of a 4-saw slasher, thus ensuring shingles of uniform length. The shingles, after being packed into bundles, are loaded on to trucks immediately back of each machine. These trucks when filled are noved along into the dry kilns. The process of drying takes about eight or ten days and the trucks come out in the loading shed, shown at the right of the illustration, where the shingles are loaded into cars for shipment to the markets of Canada and the United States (chiefly Ontario) where the output is handled by the R. Laidlaw Lumber Company, of Toronto. The logs shown in the pond in this illustration are Douglas fir, for which British Columbia is famous. These are cut in lengths of 32 and 40 feet chiefly, and average about 2,000 feet per log, grading about fifty per cent. clear.

The Logging Operations

The other illustration shows the base of logging operations in the woods, of the Robert McNair Shingle Company, on timber berth No. 38 on the Coquitlam River, 5½ miles from Port Moody. This timber berth has not been operated previous to the present year. It has been held by Mr. McNair for about fifteen years, and contains some of the finest cedar and fir timber in British Columbia. This illustration also gives an idea of the camps installed by the company. In their camp No. 1 they have 10 cabins, cook house and dining room, superintendent's cabin, commissary, blacksmith shop, filing shed, etc. The illustration also shows the road engine at the end of a pole road and the landing. Below the landing are a number of cars loaded awaiting the arrival of the locomotive. The camp equipnent includes two Tacoma yarding donkeys 10¼ x 12, one Tacoma road engine, 11 x 13, twelve Seattle logging trucks, six shingle bolt cars and one Kingston locomotive of the 0-6-0 type.

The logging operations are in charge of Superintendent John W. Crockett, who was previously with the Hammond Lumber Company, of Eureka, Cal., and who has an enviable record to his credit as foreman of camps in the Redwoods. The loconotive referred to above is of the oil-burner type, which can be operated with much more safety from fire in logging operations than a coal-burner, and with less cost for fuel.

Mr. Robert McNair is a man of about 55 years of age. He went to Vancouver from Restigouche County, N.B., about 24 years ago, and started in the shingle business, shortly after his arrival at the coast. He has been in the same kind of business ever since, and shingles bearing the McNair brand have a high reputation.

Mr. McNair is assisted in the management, particularly in the office affairs, by Mr. W. J. Miller, one of the younger generation of lumbernen, thirty years of age, who has been on the coast for two years. Previously he was manager of the Continental Lumber Company, at River Charlo, N.B.

The cabins which the men use during their logging operations are 12 x 18 feet with 8-foot posts. They have a door and window in the front and a window in the back. On one side there are four single bunks, furnished with mattresses. On the other side are a sheet iron heater, and a small table. Two extra bunks can be put in if required. These cabins cost very little more to build than the bunk houses, requiring about 1800 feet of lumber, one door, two sash, a few shakes for the roof, and about two days' labor for two men. The total cost is about $40 each, and when it becomes necessary to shift canp, these cabins can be loaded bodily on the cars and taken to the next stand.

Saskatchewan Production in 1913

The third annual report of the bureau of labour, of the province of Saskatchewan, which has just been published, contains interesting references to the lumbering and woodworking industries of that province. During the year 1913, the report says, two planing mills in the province were closed. Both these mills being in small towns and having but a very limited output, the result of their closing was more than offset by large additions to other mills especially one in Regina and one in Saskatoon.

The additions referred to are also responsible for the increase in the capital invested in this class of industry. In the following table it will be noted that while the number of employees and the number of days in operation is less than in former years, nevertheless the total value of the output shows a considerable increase. This fact was the subject of a special inquiry by the bureau with the result that nearly all the mill men interviewed stated that the class of buildings being erected in the province was gradually improving, and, as a result, the mills were turning out a much higher class of work which necessitated the use of the better and more expensive grades of wood.

New Plant of Robert McNair Shingle Co., Port Moody, B. C.

Base of Logging Operations—Robert McNair Shingle Co.

Therefore, while the total volume of work turned out did not equal that of 1912, yet it was of greater value, which fact is plainly shown in the large number of returns received by the bureau and which are set out in the following table.

	1911	1912	1913
Number of establishments	16	38	36
Capital including plant	$514,443.00	$1,331,960.00	$1,599,048.00
Average capital employed	$32,152.00	$41,570.00	$44,418.00
Number of employees	650	1,008	864
Total salaries and wages	$481,584.00	$816,984.00	$667,692.00
Annual average earnings per employee	$740.00	$810.05	$772.75
Average number of days worked	251	298	275
Gross value of product	$1,391,648.00	$2,295,594.00	$2,445,504.00

In its lumbering industry, Saskatchewan continues to hold sixth place, according to the value of output. The actual output of lumber during 1913 showed a decrease of 27 per cent, as compared with 1912. During 1912, Saskatchewan was the only province of the Dominion which showed an increase in the value of its production of lumber, this increase being 16.7 per cent. During 1913 the value of the lumber production in the province was $1,908,482, and the average value per thousand feet was $16.62, as compared with $16.12 in 1912. The following tables show the value of lumber production, the percentage of increase or decrease, and the average value for the years 1911, 1912, and 1913.

Year	Value of lumber cut,	Per cent increase or decrease	Average value per M. ft. B. M.
1911	$2,266,435	77.5	$16.82
1912	2,535,611	16.7	16.12
1913	1,908,482	27*	16.62

*Decrease

The report also contains a discussion of retail lumber prices in the city of Regina from 1910 to 1913. These prices are taken from the printed price lists issued by the lumber dealers of the city. The year 1909 was notable as a very competitive year in the retail lumber business of the province. Records of sales were reported showing a spread of $5.00 per thousand obtained for the same class of material from different buyers during that year, and for this reason it was extremely difficult to obtain even approximate prices for many materials.

During 1909 this keen competition had such an effect upon the business that beginning in 1910 an understanding as to prices would appear to have been reached by the dealers, with a result that a printed price list was issued to which a great majority of dealers strictly adhere.

This year's prices as quoted in the accompanying schedule are subject to a discount of 5 per cent. for cash, otherwise the figures shown may be accepted as actual selling prices of the various materials.

Averaging the retail price for the years 1910 and 1913 we find that the increase is approximately eight per cent.

Schedule

Dimensions	1900	1911	1912	1913	Per cent increae
1 x 2, 2 x 2	$29.00	$31.00	$31.00	$29.00	.....
2 x 4, 2 x 6, 2 x 8	25.00	24.00	24.00	27.00	.....
4 x 4, 6 x 8	27.00	28.00	28.00	30.00	3.44
Shiplap	26.00	26.00	26.00	28.00	3.56
Drop siding	38.00	38.00	38.00	40.00	.....
Common boards	25.00	25.00	25.00	28.00	3.70
Lap siding	35.00	35.00	35.00	40.00	11.11
Flooring 1 x 2, 1 x 3, 1 x 4	45.00	48.00	48.00	52.00	10.64
E. G. Fir No. 3	38.00	40.00	40.00	45.00	7.50
Ceiling, No. 1	40.00	40.00	40.00	43.00	7.50
V. J. ½ x 4	33.00	33.00	35.00	35.00	.....
Plaster	16.50	16.50	16.50	17.00	6.25
Lime	2.00	2.10	2.00	2.25	18.40
Hair	.35	.35	.35	.35	.....
Shingles	3.75	3.75	3.75	4.00	6.66
Lath	5.00	5.50	5.00	6.00	20.00
Paper	1.25	1.25	1.25	1.25	.....
Average	$22.99	$23.37	$23.46	$25.10	8.7

The foregoing schedule shows the actual selling price in Regina, and we are informed that the price usually obtained at the various small yards throughout the province is slightly in advance of the city prices, probably about $3.00 per thousand.

Four hundred and sixty thousand feet (nine hundred and ten logs) loaded on seventy cars in a nine hour day! That's five logs every three minutes through the day, or eight hundred and fifty-two feet a minute. This splendid record was made by Loaderman A. B. Cochran for the Gulf Lumber Company at Fullerton, La. A stiff-boom McGiffert loader was used.

The late Charles King, the well-known lumberman of Quebec, P.Q., left an estate valued at $967,285.05. The estate is to be divided between, the widow, four nieces, other relatives and a number of religious and charitable institutions.

The Forest—The Lumberman's Gold Mine

Specially Contributed by Ellwood Wilson

WHEN the lumberman first began his operations in Canada, he found a vast unbroken stretch of forest which had practically no value at all, which could be had for the asking and which held out little prospect of profit in the working. Just like the first great goldfields, it was too inaccessible to be valuable and he could only take out a few of the nuggets in the shape of the very best and largest white pines, which, after a long journey to market, barely repaid him for his outlay and trouble. Then as the country opened up and timber in othe rsections began to be scarcer the timber began to increase in value until now it is one of our great national assets. The time has come when we can no longer use the pick and the pan but must install hydraulic machines chemical plants and must make the most of our low grade ores. The forest, as a gold mine, will soon be a thing of the past and the lumberman must cease to be a miner and must become an up-to-date farmer, using every help that modern science can give him for the betterment of his holdings and for the production of timber crops. Just as the time is coming when the western farmer can no longer take off a crop of wheat, year in and year out, with no return in the shape of fertilizer, so can the lumberman no longer hope to take timber from the forest continuously with no care for the crop of the future.

The most vital factor in any manufacturing enterprise is the raw material on which it operates and unless there is a sufficient supply at a low enough price, the venture is foredoomed to failure. If a man buys a piece of timber and builds a small mill to saw it up, with the intention of abandoning the enterprise as soon as his wood is all sawed up, he probably proportions the mill to his supply and charges off part of the cost of construction each year, so that, at the end of his operation, the mill has been paid for and can be abandoned. In the majority of cases, however, in the lumber industry and always in the case of a pulp or paper mill, the plant is of permanent construction and is supposed to run for a long term of years, and it is necessary to have a permanent source of supply. In this latter case the elements which govern the cost of raw material are, price to buy limits or stumpage, location and accessibility, amount and quality, transportation and fire risk.

The Cost of Stumpage

Taking the situation in the Province of Quebec as an example, the first of these elements, the cost of limits or freehold timber lands, the price of the former has risen from less than one-half cent per cord in 1860 to 20 cents per cord and the most of this increase has been since 1895, while in the last few years freehold lands have risen from 50 cents or $1.00 per acre to four dollars. This rise in price is likely to be even more rapid in the future than in the past, due in part to increasing lumber consumption, but mostly to the large increase in the number of pulp and paper mills.

With the increasing demand for timber, lands which have hitherto been thought practically inaccessible are being taken up, until now, lands are being held from which it is impossible to remove the timber at a profit, and, although the price of wood is rising, the carrying charges for such lands are also accumulating and the probability is that they will never yield a profit.

While unquestionably the amount and quality of timber on a given tract is a factor of vital importance, buyers have often paid no attention to this but have bought and paid for large tracts of practically worthless timber and burnt over country. This has generally been where such tracts have been included in larger areas, but there is no common sense or business judgment in buying timber lands on the basis of acreage and it has only been because there was sometimes enough timber to pay for the whole investment that such a policy has not brought disaster. As timber lands are being cut over, it is necessary to go farther and farther from the centres of population and from railroads, and this, in Canada, means going farther north and east where the quality and quantity of timber diminishes very rapidly and the difficulty of getting it out is greatly increased by more severe climatic conditions.

As the woodlands become more inaccessible the cost of transportation rises and this is further augmented by the increase in the price of labor and its increasing inefficiency. It is probable that no other way of getting out timber will ever be possible except by river driving, as there will never be timber enough on any given area to pay for building a railroad or roads for motor tractors.

Finally there is the ever-present fire risk as an element in the cost of wood and while this is decreasing rapidly, still, the cost of

guarding against it will increase as the country is more and more opened up to settlement and traversed by railroads.

The Day of Cheap Timber Passed

With these facts before us, let us inquire what can be done to offset them. The lumber and pulp industries in Canada must realize that the day of cheap timber is over. No longer can woodlands be picked up for a song and skinned over at an enormous profit. More efficient methods of lumbering and transportation must be devised and employed. The primitive and wasteful methods must be supplanted by modern and more intelligent processes. Lumbering can no longer be the hand-to-mouth, trust-to-luck business it has been. The time has come when the engineer must take the place of the logging boss and the drive foreman. To come down to brass tacks, the following changes are needed.

First of all, owners and buyers of woodlands must know what they have or are buying, not in square miles, but in cords or board feet, not guessed at by some "explorer" working with an old government sketch map on which it is impossible for him to locate himself by several miles, but ascertained and mapped by trained and careful surveyors and estimators. Lands should be carried on the books of owners as so-and-so many cords, not as so many acres. Lands should be bought and paid for not on a basis of so many square miles, but so many board feet of stumpage.

Knowing how much timber he has and its location, the operator should make detailed plans of how much he will cut and where. In the past, this has been left largely to chance, or the future has been sacrificed to the present by taking out the timber which was the easiest to get at, regardless of any other factor. This has not been due so much, either to ignorance, or carelessness on the part of men in charge of woods operations, as it has to the ignorance of stockholders and directors and their demand for an immediate showing of profits. Timber along the shores of large rivers and easily accessible lakes has been cut off, leaving everywhere sections which were rocky or hard to get at, with the result that now it costs almost more than the timber is worth to clean up these sections. If land had been intelligently cleared up, taking the easily lumbered and more difficult together, the price would have been higher at the time, but would be much lower now and the average cost for a long period would be much less. Lands about to be cut over should be thoroughly cut, every merchantable tree allowed by the government regulations to be cut should be taken, all material which can possibly be utilized should be removed from the woods. Stumps should be taken just as low as it is possible for the sawyers to work. The axe should only be allowed for trimming off branches. Odd length logs should be taken so that the tree may be utilized down to at least four inches in diameter at the top. Trees with rot should be taken where only a small percentage of the volume can be used. No logs should be left in the woods and no good timber should be used for roads or skidways. The felling should be handled so as not to destroy the young growth any more than is absolutely necessary and camps and corduroy should be built of inferior kinds of trees. A better system of brush disposal should be employed to reduce the fire hazard. More intelligent and better trained men should be put in chage of woods opeartions as foremen and inspectors.

Improving the Water Courses

Transportation methods must be improved. The government, acting in conjunction with lumbermen and owners of waterpowers, should at once begin the construction of the necessary dams and works to control and conserve the water in the streams. Operators should make permanent river improvements which, while costing more than the present temporary makeshifts, would materially decrease the cost of driving year by year. One of the big items in driving is the cost of taking men and provisions to the places where the work begins, this has to be done each year before the ice is out and very large sums are spent in "waiting time." This could be obviated by constructing roads along the main drivable streams, a few miles each year, which would not only permit of taking in the river drivers but also the jobbers or choppers and their provisions. With such roads the logging could proceed in the summer with much less waste and difficulty than at present. Fire fighting would also be much facilitated.

Telephone lines should follow all these roads and much time at present lost on the drives saved and the manager kept in close touch with his operations. Early reports of fires telephoned in would save loss by enabling men to get to the danger point quickly.

This would also enable the drive to be planned and carried out much better. At present, the drive is let go with the breaking up of the ice and the logs travel down the stream haphazard, getting jammed or scattered over low-lying lands from which they must later be removed at large expense. It has always seemed to the writer that if crews were placed at the difficult places, flats, rapids, eddies, etc., whose business it would be to keep the logs from jamming and keep them moving so as to get the full use from the high water, the saving in the cost of cleaning up by the rear would be well worth while.

Often in bad rapids on streams which are driven every year, it would be a comparatively inexpensive matter to blast out a channel which would keep the logs from jamming. Permanent stream improvements which could be constructed co-operatively by all the operators driving on a river would reduce drive costs for all time to come. As it becomes better understood that we cannot cut off all the timber in a given territory and then leave that section for another, more attention will be paid to this matter.

All those who use wood for the raw material of their business must learn that the time required to grow trees is the governing factor and instead of operating from hand-to-mouth and taking it for granted that woods operations can be carried on in the old primitive way and without skilled supervision, they must institute the same skilled management that they use in their manufacturing operations, introduce improved machinery and efficiency systems, make permanent improvements to their drivable streams, build permanent roads and plan their operations thirty years ahead instead of from year to year.

New Equipment for South Nelson Plant

The saw milling plant of Messrs. Geo. Burchill & Sons at South Nelson, N.B., Miramichi, underwent extensive improvements during the past season. The mill was originally equipped with a live gang which consisted of a sash containing 8-10 perpendicular saws 9-10 gauge spaced to cut deals or boards as required. This was the style of mill which was generally adopted in New Brunswick when the lumber manufacturing industry was first begun, as it was the most suitable for the demands of the British market. Even up to the present time there are four gang mills running on the Miramichi. This type of mill was especially adapted for sawing large sized logs into 3-inch stock, on account of its cheap cost of manufacture and perhaps more especially on account of its uniformly even manufacture—a feature for which gang cut deals are noted. A gang, however can only be used to advantage in large logs and, as the logs get smaller year by year, the economic results of the gang likewise diminish until we reach that point where the savings of other forms of manufacture will figure out in favor of the more modern mill.

These were practically the reasons which prompted the firm of Geo. Burchill & Sons, after last season's operations, to take down the gang and install a band. They realized, that, in order to cope with present day conditions in the lumber business, every single foot of wood must be utilized and the waste in saw kerf, etc., reduced to a minimum. Accordingly, they made preparations to remodel the entire mill and, as a result the plant now consists of an 8 ft. single cutting band mill. The band was supplied by the Waterous Engine Works, of Brantford, Ont., and the rest of the machinery, drives, transfers, etc., came from the St. John Iron Works, St. John, N.B.

While there has not been an opportunity, as yet, to secure actual figures by which a comparison could be made between the results of the band and the gang, it is evident already that, in some logs the band is getting a better turn out of the log scale than the gang ever did, and, at the same time, it is possible to make a better classification of the lumber. The band shows up perhaps to its best advantage in the manufacture of hemlock boards where the saw kerf is quite a factor, while the sawing of dimension stock, for which we have quite a number of orders, is now made quite simple—hitherto it was impossible.

Geo. Burchill & Sons Plant at South Nelson, N. B.

Work of the Dominion Forestry Branch

Fire Protection Organization Being Improved and Extended—Uses of Woods to be Studied—Practical Methods Bringing Good Results

The Forestry work of the Department of the Interior of the Dominion government was the first effort in Canada to put forest administration on a permanent and scientific basis and the work, so well inaugurated by previous ministers, has found a hearty support in the present Minister of the Interior, Hon. W. J. Roche. Under his administration the fire patrol staff has been largely increased and is better equipped, the enforcement of regulations to decrease the fire hazard along railways has been made effective, the area of forest reserves has been largely increased and the staff, technical and non-technical, has been added to as necessary to meet this increase in area, while a large amount of improvement work, such as roads, trails, telephone lines and lookout stations, has been carried out and will greatly improve the facilities for protection of the forests.

Hon W. J Roche

The protection of the immense area of forest and woodland in the northern part of the province of Manitoba, Saskatchewan and Alberta and in the Railway Belt in the province of British Columbia is an enormous task and is complicated by the building of railways, the advance of settlement and the clearing of lands with fire as the chief agency. On the vast tract of 200,000 square miles outside of forest reserves there are 190 fire rangers patrolling in 13 districts, each of which is under a chief fire ranger who supervises the work of the staff of rangers in his district. The equipment for patrol has been improved by furnishing eight power boats and thirty-one canoes or row boats for patrol work and by furnishing each ranger with canvas water buckets and other portable equipment necessary for fighting fire. The enforcement of the regulations along railways has brought about the better clearing of the right-of-way, closer inspection of the equipment of locomotives, and the establishment of patrols by the railway companies, which has greatly reduced the fire danger along the railway lines. During the year 1913 the fire loss was remarkably low and while this was in part due to weather conditions it was, as stated by the Chief Inspector of Fire Ranging, also due to the distinct improvements in organization and administration which have been brought into effect. This is demonstrated by the fact that 700 fires were extinguished by the fire rangers during the year.

This great area of forest and woodland outside of forest reserves is being inspected and mapped each year by timber survey parties under technically trained foresters and in a few years accurate knowledge of the timber resources of this country will be obtained and it will be determined also what lands are non-agricultural and should be retained for timber production.

The Work of the Field Survey Force

In the summer of 1913 the Dominion Forestry Branch had eleven survey parties in the field, and over 15,203 square miles of wooded country were examined, at an average cost of only eighty-nine cents a square mile. The technical foresters in charge of these parties are qualified to report not only on the forest conditions but also on the geology and character of the soil in the regions examined, and if the latter is clearly unsuited for agriculture the area is recommended to be reserved in order that the young trees may be better protected from fire, which in the last fifty years has destroyed over half the original stand of timber on the area examined by the Branch. This area comprises about twenty-five per cent of a belt from 40 to 150 miles wide, stretching from Lake Winnipeg to the British Columbia boundary. In the Railway Belt practically all of the Coast district and the Dry Belt has also been examined by Dominion foresters.

It is disheartening and is an index of the gravity of the situation in regard to the timber supply to find such reports coming in from these explorations as that on 8,000 square miles of absolute forest land on the north end of the Rocky Mountains there is not eight per cent of virgin timber. This is the result of repeated fires and involves a loss of over one hundred million dollars to the country. Only the most strenuous efforts of a complete and well equipped staff can arrest this fearful destruction.

Adding to the Forest Reserves

As a result of the reports of these exploratory parties additions were made, in the year 1913 and in the present year, of 18,673 square miles to the forest reserves. These include all the non-agricultural land in the dry portion of the Railway Belt in the Province of British Columbia, in the Rocky Mountains as far north as the Athabasca River, and in the province of Saskatchewan. This includes nearly all timber lands, or poor lands in the vicinity of settlement. The area in forest reserves is now 43,715 square miles. As stated by the Director of Forestry, "Perhaps the most outstanding feature of the development of Dominion forestry work recently has been the consolidation of the forest reserve administration on a well organized basis, and with a fair proportion of scientifically trained foresters, with the result that it will be increasingly possible to apply good forestry methods in the handling of the timber and other resources of the reserves. This is a development made possible by the fact that technical training in forestry is now being provided by some of the colleges in Canada, and when this is supplemented by ranger schools, in which the forest rangers can also be given special instruction, it should not be long before the Dominion Forest Service will be as well organized an institution as in any other country which has reached the same stage of development."

The staff on the reserves has increased to 110, of whom 20 are technically trained foresters. In the last two years a great deal of improvement work has been done on the reserves, amounting to 22 ranger houses and 42 cabins, 395 miles of road, 1,150 miles of trail, 200 miles of telephone line and 5 lookout stations. Complete specifications have been drawn up for these classes of works and a careful system of cost keeping in eliminating any unnecessarily high costs.

The result of these improvements is shown in the fact that the loss by fire on the forest reserves in the year 1913 was less than two-hundredths of one per cent.

Reforestation Progress

While protection work on the forest reserves has been given first consideration, management of operations and reforestation work have not been overlooked.

Small nurseries have been developed on some of the reserves to provide trees for reforestation. The nursery on the Spruce Woods Forest Reserve in the province of Manitoba now contains 530,000 seedlings and transplants and the work of replanting on this reserve will be begun seriously immediately. A number of the new reserves in the province of Saskatchewan are bare, sandy tracts which will require replanting and steps will be taken immediately to get this work under way.

In management of operations the chief advance has been in the disposal of debris. Both on settlers' permits and on larger operations, the piling or lopping of brush has been required and is now being fairly well observed, resulting in a great reduction of the fire danger and in providing a better seed bed for natural regeneration of the forest.

The first and one of the most interesting divisions of the forestry work of the Dominion was providing trees for planting on farms in the prairie districts in the West. Its value in adding to the comfort and beauty of the prairie homes is incalculable and the appreciation of this work is very gratifying. It is now being imitated by the federal government of the United States, but in this respect Canada led the way.

Approximately three million trees were distributed in 1913 by the Dominion Forestry nursery station at Indian Head, making a total of twenty-four million trees furnished by the nursery station to settlers on the western prairies. The trees chiefly planted are green ash, Manitoba maple, cottonwood, willow and Russian poplar; and of the conifers, spruce, larch and pine. In 1901 only four acres were devoted to tree culture at Indian Head. Sixty-seven acres are now required, and there has been such an increase in the demands for trees that a branch nursery was established in 1913 at Saskatoon, which will take a share in the distribution of tree seedlings this spring.

The New Forest Products Laboratories

One of the most important advances in the past year is the establishment by the Department of the Forest Products Laboratories at Montreal in co-operation with McGill University. These laboratories have been established to furnish authoritative and reliable information in regard to Canadian woods, and to induce the carrying on, into the manufacturing processes, of the elimination of waste which is being introduced into the standing forest.

Waste is being reduced in the forest itself, but the problem goes further. Waste should be reduced in the use of forest products. This

is the object of the laboratories which are to lead to a better utilization of our forest resources by:

1. Finding more efficient methods of manufacture of woods.
2. The elimination or utilization of the wastes of manufacturing and logging.
3. Finding uses for woods not now commercially useful, from a study of their mechanical and physical properties.
4. Finding better use for woods now used to make the lower-grade commodities.
5. Looking for Canadian woods to substitute for imported woods, either in their natural state or after treatment.
6. Studying and developing the fundamental principles underlying the treatment of wood in its use in the manufacture of fibre products—alcohol, turpentine, resin, tar, etc.
7. Serving as a public bureau of information on the properties and utilization of forest products.
8. Co-operating with consumers of forest products in improving present methods of use and formulating specifications and grading rules for commercial woods, materials secured from them, such as gums, oils, resin, etc., and materials used in the treatment of wood-creosote, zinc chloride and other preservatives.

It is proposed to begin at once by making the tests of the mechanical properties and strength of the different varieties of woods. Western Douglas fir and a few eastern species will be the first experimented upon. Also there will be undertaken immediately, investigations in the use of woods in the manufacture of pulp and paper. The special problems that this section will deal with at present are:—(1) methods of making ground-wood pulp to determine whether or not commercial pulp can be made from species other than spruce; (2) the practicability of treating different woods with the sulphite and soda process; (3) the qualities of paper which can be made from different grades of the various sulphite, soda and ground-wood fibres; and (4) the practicability of using different forms of wood waste for the manufacture of paper pulp and other fibre products. The manufacture of wood-pulp and paper is to be one of the largest industries in Canada and the problems that affect them are of vital interest to the country.

Work to be Self-Supporting

The tendency is for government forestry to become more and more self-supporting as time progresses. It has long been so in British India, where forestry practice is highly developed; it is rapidly becoming so in the United States in spite of an annual expenditure of over five million dollars for forestry purposes. It will soon be so in Canada in spite of the fact that the revenue from Dominion Forest Reserves for the fiscal year ending March 31, 1913, barely exceeded $23,000, derived principally from the disposal of small amounts of timber to settlers and miners.

The present revenue from Dominion timber lands under license approximates one-half million dollars, but although a considerable portion of these timber limits are within forest reserves, the revenue is at present handled by another branch of the Department of the Interior.

Since the passage in 1913 of the new forest reserve regulations permitting the grazing of stock to the full capacity of these reserves, a very important new source of revenue has been provided. The revenue from grazing on the National Forests of the United States last year amounted to over one million dollars. On Dominion Forest Reserves four million cattle, at the minimum charge of twenty-five cents a head, would produce a similar annual revenue, and the forest reserves should ultimately provide ranges for that number.

Other natural resources are exhaustible; the forests can be rendered permanently productive. Other resources are valuable for themselves alone; on the maintenance of the forests depends the perpetuation of Canadian game and also all industries relying for their existence on a continuous water supply which the forests alone can regulate adequately.

It should be remembered, however, that forest fires still rage and the danger continues in spite of an efficient forest service. This is brought home to us by the smoke covered cities in the month of May. More money should be spent at once and should continue to be spent in perfecting forest fire administration. Results have shown that this is the cheapest form of insurance possible.

A Remarkable Record of Service

One of the most important factors in the successful operation of a sawmill, is the securing and holding of skilled men. At Victoria Harbor, Ont., the Victoria Harbor Lumber Company have been able to retain the services of some of their best men for many years. The accompanying group portrait shows Mr. Philip Schissler, who has been with the company for 30 years, as yard manager, and his five

Lifelong employees of the Victoria Harbor Lumber Company—Philip Schissler and his sons,

sons, who have never worked for anyone else until two years ago when one of them accepted a position as customs officer. The father is the central figure in front. From left to right the members of the group are as follows:—Front row: Harry, inspector; Philip, yard manager; Herbert J., head inspector; back row: Frank, office clerk;

Extensive plant of the Victoria Harbor Lumber Company, Victoria Harbor, Ont., as seen from the water front.

Charles, assistant inspector; Jesse, former inspector, now customs officer at Port McNicoll.

Philip Schissler is of Pennsylvania, Dutch origin. He came to Canada from Williamsport, Pa., to work for the Georgian Bay Lumber Company, at Waubaushine, Ont., and remained with them about 12 years. When the late John Waldie started the Victoria Harbor business, Mr. Schissler was appointed yard manager, and he has stayed at this work ever since, a fact which accounts considerably for the uniformity of the inspection of the company's stock. Another son, the eldest, who also was with the company during all his working life, was unfortunately killed by an accident some years ago. A memorial window to him has been erected in the Presbyterian Church at Victoria Harbor.

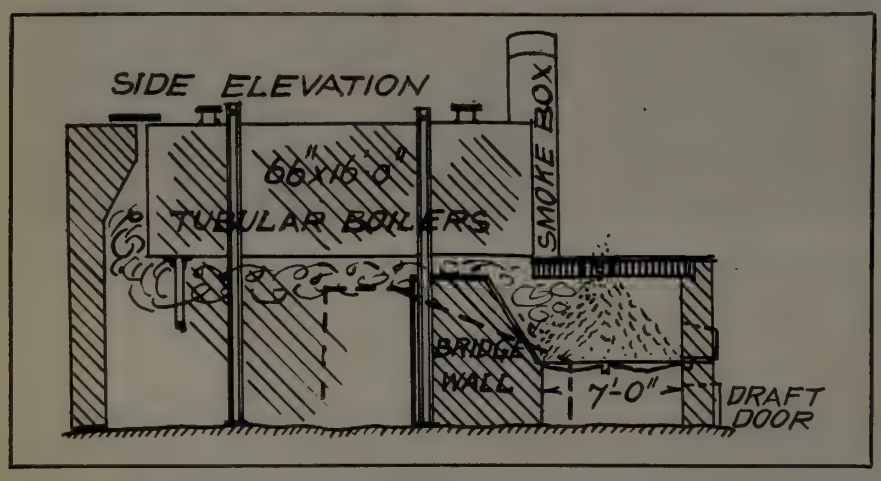
The plant of the Victoria Harbor Lumber Company is one of the most up-to-date and efficient saw milling plants in Eastern Canada. A panoramic view of the harbor showing all the buildings and yards of the plant is given in another illustration. The company was organized in 1886 by the late John Waldie. The plant consists chiefly of three mills, a power house and a splendid piling yard. Mill No. 1 is a timber mill and planing mill combined, with a capacity of from 40,000 to 45,000 feet in a ten-hour day. Mill No. 2 contains a double cutting band, one circular, one gang and a lath mill. Mill No. 3 contains two single cutting bands, one gang, one slab resaw, and a lath mill. Mills No. 2 and No. 3 each produce about 125,000 feet in a ten-hour day.

The company's piling yards are laid out so as to furnish the best possible facilities, and the stock is shipped from the pile direct into railway cars, tracks being laid between the piles. The company use two of their own locomotives in drawing the cars to and from the yards.

Installing Sawdust Burning Boilers

By W. Marsh

BEFORE the introduction of steam as a motive power for operating sawmills, it was a simple matter to rid the mill of sawdust. The only thing to do was to allow it to fall into the waterway under the mill and be carried away into the main stream. This went on without interruption for many years, but the time came when navigation and fishing rights were seriously interfered with on account of the accumulation in the rivers of beds of sawdust. This, and other causes, led to the installation of steam



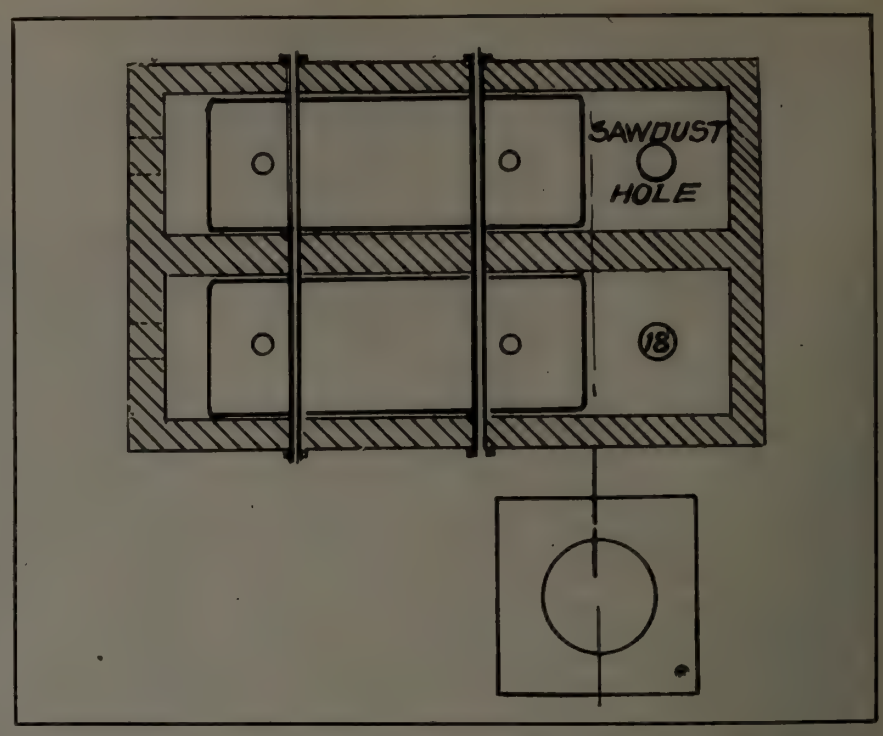
power, and today it is a rare thing to find a waterpower sawmill, except on the very large rivers such as the Ottawa and tributaries.

Naturally, the men to whose lot fell the first installations of boilers for using sawdust, were handicapped on account of inexperience. They had a hard task, and it was heartbreaking to see the mill having to stop for want of steam. Criticism, naturally, was not lacking (fortunately, sawmill engineers did not swear in those days), and many opinions were expressed.

Up to a few years ago it was customary to build very long boilers, about 30 ft., with two or three large flues about 12 to 15 inches in diameter, with the furnace built immediately under the boiler, or boilers, as the capacity required called for. Chutes were provided to allow the sawdust, carried in the conveyors, to fall into the furnace, at the side of the boiler. Cuttings were also hauled by horses from the mill to the front of the boiler furnace, and fed in by the fireman, and, in large mills, by several firemen.

Engineers in the meantime worked hard towards improvement, and today we have a furnace for burning sawdust and mill refuse that gives the maximum of efficiency and requires a minimum of labor to operate. This furnace is generally known under the name of "Dutch oven." The illustration shows the plan of two boilers set up with the Dutch oven extension for burning sawdust.

One feature of this furnace is the bridge wall, it will be noticed that it is built up to within about 8 inches of the bottom of the boiler, and 20 inches from the front. This causes a sharp current of air to



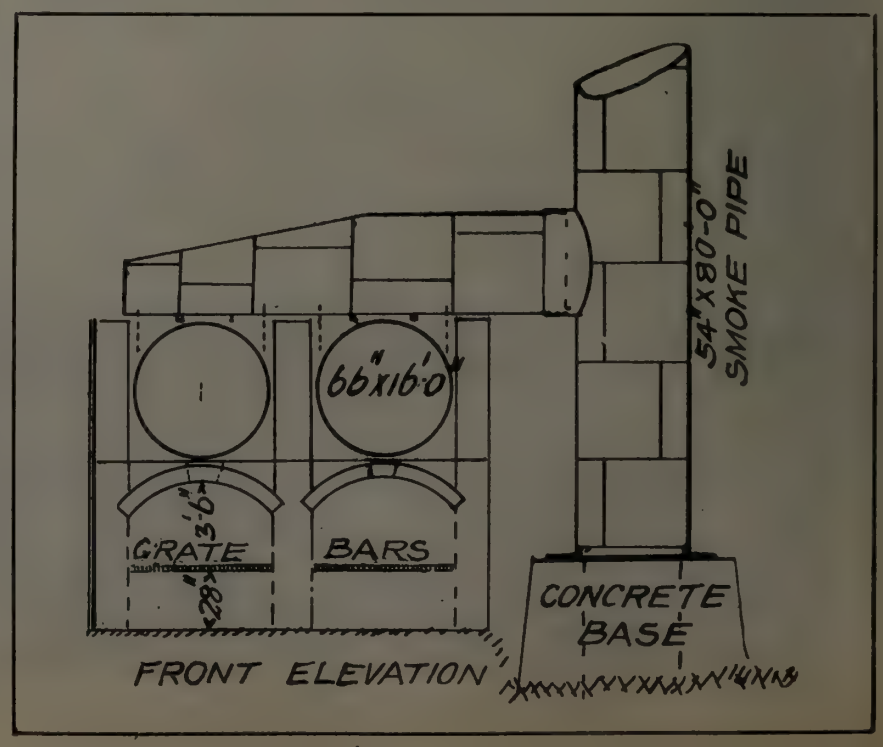
carry the flame the full length of the boiler. The dotted lines in No. 2 show another manner of building the bridge wall, but this is not a good design for easy steaming, for the flame strikes the fire sheet of the boiler too far back and a consequent loss of heat is the result. The principal feature of the boiler setting shown in the plan is the smoke pipe. D is 54 in. diameter by 80 ft. long; for two boilers 66 in. x 16 ft. This might appear excessive, but for burning green fuel it has been proved to be just what is wanted. There is then no need of introducing steam jets or patent blowers to help the draft.

For burning green fuel in a sawmill, the area of the smoke pipe or chimney should exceed the combined area of the boiler tubes, at least fifty per cent., and be four and a half times the length of the boiler in height.

A few years ago a man arrived in the province of Quebec with some capital to build a sawmill. He asked some advice of a friend who had been in the business for many years. The friend told him if he was going to build a sawmill "not to build it," but, if he insisted on building, to purchase a couple of extra acres of ground next the mill and cover it with boilers. Whether this man took his friend's advice is not on record, but he is in the sawmill business today and the incident occurred twenty years ago, which goes to show that he must have taken at least half his friend's advice, if not the whole.

There is one peculiar fact regarding the burning of sawdust for steaming. It must be burned alone. No other refuse should be mixed in with it. It is better to burn other cuttings in a separate furnace. This is particularly so in small plants.

Just one more word; to the second hand buyer—Never buy a second hand boiler; unless you can prove by the stamp on it that it has been in use only a short time and is of first class design. Then have the boiler inspector see it before you have anything to do with it.



Reducing Waste in Logging Operations

A Practical Consideration of a Problem Which Faces Every Timber Owner—How the Output per Acre Can Be Increased Without Additional Expense

Contributed specially by D. E. Lauderburn

WHEN the subject of waste is brought to the attention of an operator who owns his timberland and is running a saw mill, his first thoughts seem to be invariably about the waste in the mill, the complete utilization of everything that can be manufactured at a profit and the utilization of as much of the waste material as possible for fuel. His judgment of the waste in the woods is based on the cost of the logs at the mill. The inspection of the mill operations is easy, the inspection of the woods operation is difficult, involving much walking where the mosquitoes and black flies are numerous and persistent. And why inspect the woods operations thoroughly, he asks, when the logs are coming in at a reasonable cost? The woods superintendent is apparently energetic and competent. He generally has worked his way up from the ranks, and probably holds his position mainly because of his ability as a leader of men.

But let us spend a few days "up river" where these logs come from; not all the time on the logging roads and "lunching" in the various camps, but travelling through the brush between the logging roads, and let us occasionally go back to the very last yard and up a skidding road to where the last tree was cut, and we shall find many surprising things which may take some of the complacency out of us, and make us think a bit. I shall summarize a few things I have seen in various logging operations, any or all of which may occur in yours.

The Chief Sources of Waste

Some of the first things we shall see as we enter the cut-over areas, will be the stumps and tops. Here is one of the most evident items of waste in the average logging operations. We are amazed to find very high stumps that are perfectly sound, containing in the aggregate a very large amount of the best grade lumber in the tree. A little more difficult to find are the tops, as they are covered with piled-up brush; but if we dig some out we shall find some more startling things. In an operation conducted by one of the best companies with most efficient mills, I found by actual measurement that the production per acre could be increased 4 per cent if the stumps were cut a little lower, and the top logs were carried up a little higher. In the average tree, the used length could have been increased by two feet without adding anything to the cost of production. The waste of two feet per tree in used length, or 4 per cent in volume, merely indicates that the operator must have more land to cut over, or that he will have to purchase more timber at an earlier date than would be necessary if this 4 per cent were saved. The labor in getting this 4 per cent is not appreciably greater. It merely requires the bending of the sawyers backs to cut the stumps a few inches lower. It does not even require more head-work on the part of the sawyer. It is merely a matter of supervision and encouragement, and the enforcement of cutting rules which may be easily established. If the operation is for pulpwood in addition to saw logs, the waste is often much larger, as smaller material may be profitably utilized.

With the idea of waste in our minds, we find many other things of interest if we have sufficient energy to travel through the brush for several days. Here and there we shall find a tree lodged and left, because it was too much trouble to get it down. Sometimes this is excusable. For example, in a pulpwood operation, a small spruce tree may lodge in a large birch or maple which would be very difficult to fell and cutting it might involve more labor than the spruce is worth; but more frequently, lodged trees are left because the sawyers are trying to make a big day and beat out the other crews. There are always plenty more trees standing about which can be cut easily and the sawyers prefer to make a big day and get a big count which will make their work compare favorably with that of the other crews, rather than do a clean job, cutting everything which is usable. They cannot be blamed for it. Their efforts are most likely judged by the records on paper in the office, not by an active inspection of the area cut over. It is not likely that carefulness in cutting will be carried to such an extreme that the cost of the logs will be greater; but if the proper pressure and encouragement are used, much of the timber now wasted, will be saved and the cost will be about the same.

Another considerable item of waste, caused by misplaced pressure, occurs in the swamping of logging roads, particularly wide main logging roads. The work of the swamping crew is judged by the amount of road cut per day, and the cost per mile. Little or no consideration is given to the amount of timber wasted. The larger trees in the road are usually left for the cutting crew; but invariably many small trees which might profitably be used for pulp wood or lumber are cut down, cut up into unmerchantable lengths and rolled to the side of the road to rot. These logs could just as well be cut into merchantable lengths, and rolled to one side to be picked up by the skidding teams, and at no increased expense. This waste, as with most of the other items, might be prevented by proper encouragement and education with regard to the value of timber.

Value of Timber not Properly Appreciated

Many other items of waste occur which are due to lack of appreciation of the value of the timber. Many trees are cut down and cut up with the axe when the saw might be used to save the amount wasted in chips. Valuable logs are frequently put into corduroy roads and bridges, when less valuable material could be used. Almost invariably the best and largest logs are used in building camps. If the stumpage value of the logs used in camps is not considered, camps can usually be built more cheaply by using large, sound straight logs in the old-fashioned way, but the story may be quite different if the stumpage value is added to the cost of the camps. It is possible to use small, short and crooked trees for camp construction. If the logs are stood upright instead of horizontal. This style of camp has its disadvantages. The chinking is more likely to fall out; but that may not be a disadvantage if the value of the labor necessary for re-chinking is weighed against the value of the good logs used in the old-fashioned camp. These remarks of course refer to camps far from a railroad or sawmill. The cheapest camp can be made of lumber if the cost of transporting the lumber is not too great. One advantage of a camp with logs upright is that it requires less skilful labor in its construction than the old style camp. A few years ago I saw a camp under construction in the state of Maine. Only two men in the crew knew how to notch the logs properly. They were the foreman and the cook, the remainder of the crew being largely foreigners hired in a large city.

Perhaps the greatest waste of all, however, occurs in the poorly planned operation. Frequently a township or limit is cut over in a most haphazard fashion. There may be no "kick" from headquarters for the logs are delivered cheaply enough. Groups of trees are often left standing between the works of different camps, or in the operation of one year the cut is not made adjoining the cut of last year and strips or bunches of timber are left standing in such a way that it will not pay to go in for them another time. Thus, millions of feet in the aggregate are left scattertd about over a township or berth, which are allowed to become hyper-mature and to rot and become a total loss to the owner of the timber. This is particularly true of operations where the cutting is done by contract. Contracts are loosely drawn, giving the jobber the opportunity of cutting wherever he pleases over a certain area. Not being financially concerned with the future of the tract, he cuts where the timber is thickest, leaving scattering trees and isolated clumps, which it would be slightly more expensive to cut. This can be prevented only by rigid contracts compelling the operator to cut clean as he goes. The usual objection to more rigid contracts is that the jobbers will demand a higher price per thousand if restrictions are placed on him. That fact is worth consideration and should be weighed against the value of stumpage which may be saved by restrictions and provisions in the contract, but which is sure to be wasted if these restrictions are left out. With the increasing value in stumpage, the time will come when haphazard cutting will be quite evidently unprofitable. It is unprofitable now, but this is not evident to the officers of a lumber company who have to remain in their offices in the city most of the time, and have not time to examine their logging operations frequently and thoroughly.

The Remedy—Instruction of the Men

There is a remedy for this wastefulness. This remedy is, fundamentally, the instruction of the men in the logging operations with regard to the value of stumpage. I have seen this brought about by the establishment of cutting rules and constant and careful inspection of the logging operations. The waste is usually so evident that it is not difficult to show the superintendent, camp foreman, woods crews, etc., when it exists. If a high sound stump is pointed out, the lumber jack will quickly enough agree that it is avoidabel waste. If his attention is called to the fact that stumpage is worth more now than it was ten, fifteen or twenty years ago, he will understand. But if the superintendent, who may be thoroughly efficient in managing men

and in adopting the best methods of getting out logs cheaply, is indifferent to the increased value of the stumpage and the very evident waste of valuable material, his camp foreman and jobbers are not going to work a little bit harder to save where there is no encouragement, but rather disparagement towards any attempts to do things differently from the methods which they learned when they first went into the woods; and likewise the men in the camps are not going to bend their backs a little more and think a little harder when they are not encouraged to save.

I have seen the waste reduced 10 or 15 per cent and the cut per acre increased that amount without the disastrous results that are sometimes predicted by the "stand-patters" among the lumbermen. The men did not quit when they were compelled to bend their backs and saw the trees down close to the ground, and when they were compelled to go back to fell a lodged tree, or some scattered trees left standing, or to pick up some logs left beside the wood. Instead, they took pride in doing clean work. Camp No. 1 would pride itself on doing better than camp No. 2, and the company continued to cut and manufacture at a profit.

The method used in eliminating the waste was simple in the instance referred to above, and is applied in modified form in many operations. A set of cutting rules was drafted in several languages, and posted in the logging camps. A corps of inspectors was organized. These men did nothing but travel from camp to camp, examine the operations carefully, measure the amount of waste and report to the head office of the company. The manager thus had figures from each of his operations, and could compare the work of his superintendents or jobbers. If matters were not satisfactory the blame would fall on the superintendent or jobber for allowing his men to waste the company's timber. Matters would have to be changed as the reports would keep coming in week after week, and improvement or lack of improvement could be noted. The superintendent or jobber would have to take his camp foreman or sub-jobbers to task, and the foreman or jobber was compelled to force his woodsmen to cut according to regulation. The inspectors were the eyes of the manager in his city office miles away, who usually could not get away to the woods and use his own eyes. All orders to the men in the woods would come from headquarters, and they were the kind of orders which brought results. At a cost of a few thousand dollars a year, many thousands of dollars worth of timber was saved. The time is coming when all lumbermen will become equally conservative in the cutting of their timber and more attentive to methods requiring careful supervision of the harvesting of an increasingly valuable natural resource.

The Railroad Car as a Lumber Consumer

Some Car Shop Views Arisng Out of the Increasing Use of Steel Frames and Wood Lining—A Few Valuable Suggestions

(From a Montreal Correspondent)

ACCORDING to the belief of those who are engaged in the business of building railway cars, the all-wood box car is doomed, and, before long, Canadian railways will have adopted composite construction, with steel frame and wood lining for freight cars. This change in construction has made a great difference in the lumber situation, both for car builders and lumbermen. It has opened up a market for a specialized lumber product which takes the place of a lot of miscellaneous items formerly used, and this product applies principally to owners of Norway pine limits.

I would like to point out to the Eastern Canadian lumbermen some features of this market and the extent of it. In the all-wood car the builders were limited to the use of long leaf pine for the sills, and long leaf or British Columbia fir for ridge poles and carlines. In addition to these larger sizes, there were a lot of smaller sizes used for framing, etc., and although oak and sometimes birch were allowed for the smaller members, the lumber buyers could usually make a better trade on the large sizes of yellow pine if they included a proportion of the smaller ones with their orders. Consequently yellow pine held practical control of the market.

The parts of the newer composite car in which the specifications call for yellow pine, are limited to two or three items of small size, and in each case the builders usually have the option of using yellow pine, British Columbia fir or Norway pine. The western mill owners are seriously handicapped by reason of the long haul on their product, and, in the past supplies of Norway have been totally inadequate, so that the shops have been driven to the use of yellow pine.

There are two special sizes which comprise the bulk of the lumber requirements for inside sheathed, steel frame, box cars. In each car there is approximately 1,000 feet of 1¾ x 6 in. x 15 ft. 7 in. and 400 feet of 2 x 6 in. x 8 ft.7in. It may be interesting to learn that since 1908 the Canadian railroads have put into commission close to 40,000 of these steel frame cars, but these were not all built in Canada.

It is difficult to get exact figures, but at least 25,000 of them were built at home. As each car requires approximately 1,000 feet of 1¾ x 6 in. x 15 ft. 7 in., this means twenty-five million feet of side lining, and in addition there is in each car about 400 feet of end lining of 2 x 6 in. x 8 ft. 7 in. requiring another ten million feet, in all about thirty-five million feet for the twenty-five thousand cars.

There is no way of arriving accurately at the quantities of the different kinds of lumber which went into this construction, but twenty per cent. will more than cover the quantity of fir and Norway, leaving close to thirty millions of yellow pine used for inside sheathing. If this were absolutely new business the showing would not be so bad, but this yellow pine has displaced spruce and white pine formerly used on all-wood cars for inside lining (which was furnished in miscellaneous sizes), and British Columbia fir, which was used largely for outside sheathing, so that, with the exception of the flooring and roofing, yellow pine has practically displaced all Canadian products.

I think it is safe to assume that Canadian lumbermen have not grasped the magnitude of this situation. This is all high grade stock commanding a good price, which goes to the Southern States mills, along with a large proportion of the freight to American railroads. This material comes through in foreign equipment, displacing that of our own roads, which would be used if the material were manufactured in Canada.

In addition to the inside lining there is the decking, which is usually spruce or Norway. The building of this lot of cars consumed about 800 ft. per car of this item, or in all twenty million feet. The car shops have difficulty also in getting domestic supplies of this item, cut to suit their requirements. This stock is all, or practically all, 9 ft. long, and 2 x 5 to 8 in., with no limit set to the quantity of any particular width, such as is required for 2 in. lumber cut for the American market for the building trade; a trade which insists on a specification being adhered to, and in addition usually demands a long average length.

The case for the car builder is this: He would favor home supplies but cannot get them to suit his needs. A southern mill will cut any size in almost any quantity and deliver promptly, and they are looking for business. We realize, of course, that, as a rule, his is an all-the-year-round logging proposition, whilst the Canadian's is not. Yet one need only go to any large yard to find immense stocks being cut on pure speculation, as to the demand at least, which means more or less speculation in sizes. One, two and three inch lumber, ten feet and up, has been cut by every mill since lumbering started, and often the stocks are piled to wait for a buyer. Why not switch over part of the Norway into what the car trade asks for? The probability would be that any lining cut and stocked would not remain in mill yards longer than many other lines now carried.

This car lining proposition is as much a fixture as many lines now being manufactured from Norway pine. As already stated, it is a high grade article, and should include all the upper end of the log product but will admit of small tight red knots up to 1-in. in diameter and well scattered. The edges should be practically clear of knots that will loosen up in the kilns, and split out in the matching. The object to be attained is a perfectly tight car with a single wood lining, free from defects which, in the course of time, and through service, might get worse and the car thus lose its "grain tight" condition. I think that our mill men can devise some way of securing part of this trade. It seems to be worth going after.

The same conditions prevail in regard to car decking. Mills will not cut 2-in. planks 9 or 18 feet long, especially for car trade. The enormous waste and loss to the car companies caused by buying 2-in. planks 9 to 13 feet, is driving them to the yellow pine markets for this item.

The foregoing covers only a few freight car sizes and amounts to fifty odd millions, over half of which has been foreign lumber, the money for which went out of the country. These conditions in reference to decking prevail also in the flat and ballast car trade, of which no attempt is made to form an estimate, but it is also a big item.

I am not offering any solution, simply pointing out a great big field for somebody to invade. It looks worth while and is worked by the American lumbermen for all it is worth, against a freight rate of from $12 to $18 per M. feet. Why not by the Canadian?

Selecting Belts, Pulleys and Shafting

Useful Information Regarding Economical Combinations for the Transmission of Power—Principles Which Govern in Different Cases

Specially contributed by N. G. Near

BELTS are usually expensive. The wider, the thicker, and the heavier the belt, the more it costs. The cost can therefore be considered as directly proportionate to the weight. The problem of belt choice thus resolves itself into the question, "Shall I buy a light belt and run it at high speed, or shall I buy a heavy belt and run it at low speed?" The light belt will cost less; the heavy belt more.

For example, I know of a belt in a sawmill, an unusually thick and heavy one, that weighs over 2,500 pounds. It is 114 feet long and 8 feet wide. Of course, it cost considerable. In its day it was a record-breaking belt, but, it cost too much. It is needlessly large, a fact that can be easily proved by a little simple arithmetic. This belt runs at a very low speed—about 1,500 feet per minute. Now, 3,000 feet per minute is not too fast for any belt. 4,000 and even 5,000 feet per annum are often successfully used. oHewver, in the above case the speed could be doubled as well as not, which would require a belt weighing only half as much. The belt could be split in half. Pulleys of larger diameter would be required, true enough, but the increased diametrical size would be considerably offset by the reduced width, resulting in pulleys that would weigh and cost but little more. The total cost, then, with pulleys of doubled diameter and belt of half the width, would represent a good substantial saving.

By applying your elementary arithmetic along the above plan you can, with absolute certainty, select the most economical belt and pulley combination. To be more concise, I will tell exactly how to make

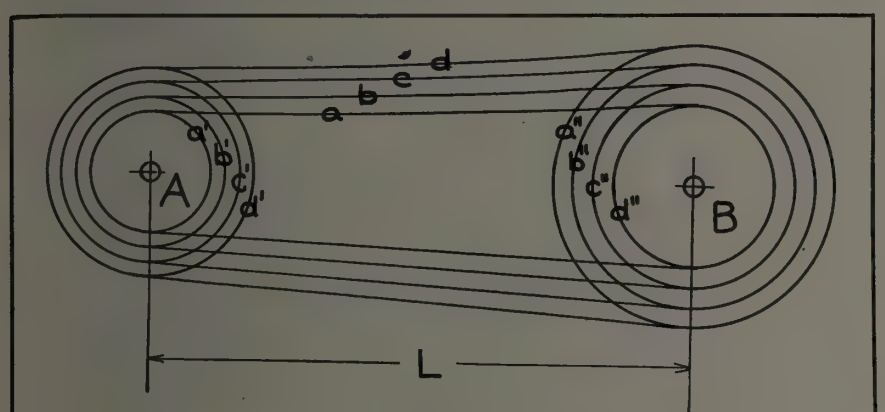


Fig. 1.

Cost of a + a′ + a″ = ? Cost of c + c′ + c″ = ?
Cost of b + b′ + b″ = ? Cost of d + d′ + d″ = ?

Select the least expensive combination provided the pulleys are not too small. Be partial to large pulleys.

the selection: To begin, we use the well-known rule of thumb, "A belt one inch wide, running at the rate of 800 feet per minute, will transmit one horsepower. A double ply belt, one inch wide, running at the rate of 500 feet per minute, will transmit one horsepower."

In Fig. 1 I show graphically how it is determined. A is the driving shaft which runs at 400 r.p.m. B is the driven shaft, and it must run at 300 r.p.m. The pulley ratio must therefore be 4 to 3. That is, A must be just ¾ the size of B. Hence, if A is 12, 15, 18, 21, 24 or 27 inches in diameter, B must be 16, 20, 24, 28, 32 and 36 inches in diameter. Twenty horse power will be transmitted from pulley A to B. Allowing a belt speed of 3,000 feet per min., we find the belt width necessary by applying the above rule of thumb, with a double thickness belt we find that each inch in width will transmit 3,000 ÷ 500 = 6 horse power. The width of belt to transmit 20 h.p. will therefore have to be 20 ÷ 6 = 3 2/3 in. Inasmuch as this is an odd width we will try a 4-inch belt, temporarily.

The pulley diameter on shaft A, to drive the belt 3,000 ft. per min. is easily found by multiplying 3.82 by 3,000 and then dividing the product by the r.p.m.—400. This gives a pulley diameter of 28.6 in. Expressed algebraically the formula is $D = \frac{3.82 \times S}{N}$,

where D = diameter of pulley in inches;
S = speed of belt in feet per minute;
N = r.p.m. of shaft.

However, pulleys are not made 28.6 in. in diameter, nor are they made in 29 inch sizes, according to the pulley catalogs I use. They are made in 30 in. sizes, so, we will try A = 30 in.; and B = 40 in., the correct pulley ratio.

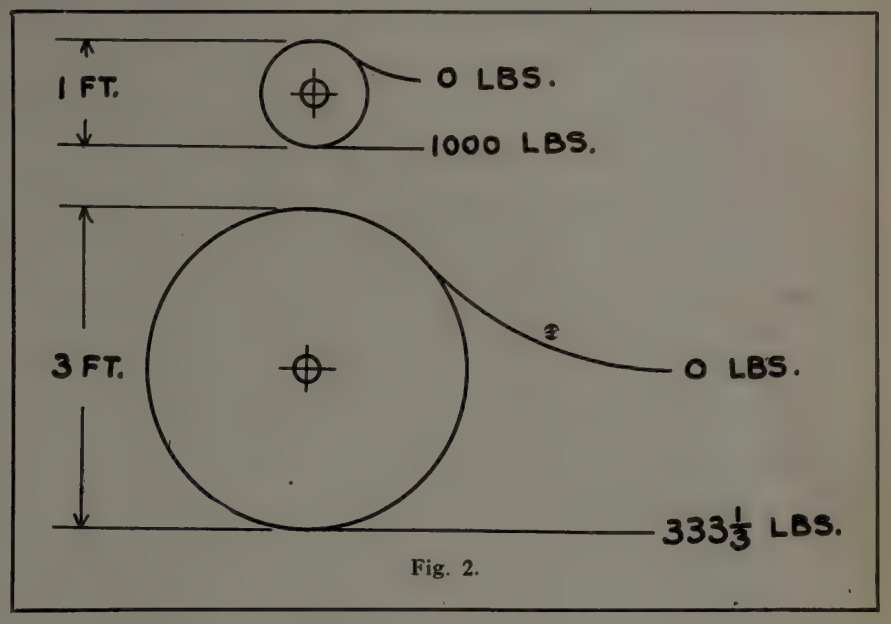


Fig. 2.

We are now ready to compute the cost of drive, exclusive of the shaft and bearings. The cost of shaft and bearings would be constant anyway, because the r.p.m. will not vary and the twisting force will be constant regardless of the size of pulley.

To determine the cost of the belt multiply the centre distance L by two and add half the circumference of pulley on A, Then half the circumference of the pulley on B. These dimensions must all be in feet. Your belt catalog will tell the cost of a 4-in. double ply belt per foot, which renders computation easy. Then add the cost of the belt to the cost of both pulleys and you will have the total cost of the drive. Next, try the 24-in. and 32-in. combination in identically the same way and make note of the total cost. The belt to be used here may have to be larger than 4-inch. Let us see. The above formula can be thrown into this form:

$$S = \frac{D\,N}{3.82}$$

whence S for the 24-in. pulley on shaft A will be 2,510 ft. per min.

2510 ÷ 500 = 5; i.e., each inch in width will transmit 5 h.p.

20 h.p. ÷ 5 h.p. = 4.

Therefore, the same 4-in. belt may be used on considerably smaller pulleys. The belt will cost less because it will be slightly shorter, the pulleys will cost less because they will be smaller, and the 24-32 combination will be less expensive.

Next, try the 21-28 combination, and then the 18-24 combination. The most economical will then be easily selected from the four totals. In this problem I have purposely omitted cost figures because I would prefer to have the reader work through a problem for himself. The method would then never be forgotten. I have followed the above through, but, as you will not, I omitted the distance between shaft centres. This is a very important factor for it will be understood, in considering the above method, that where distances between shafts are short, small pulleys and heavy belts will prove most econ-

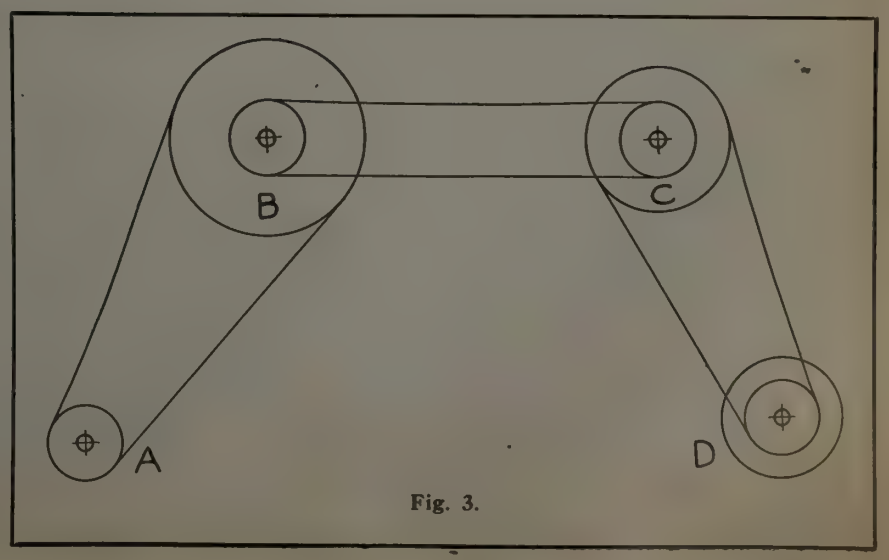


Fig. 3.

omical in first cost, whereas, where distances between shafts are great, large pulleys and light belts are best.

Good Judgment Also Required

To be sure, it is always necessary to apply judgment as well as mathematics in selecting a drive; you wouldn't order two 4 ft. pulleys for a drive having only three ft. distance between centres, for instance. Such a drive wouldn't work because the pulleys would interfere. And you wouldn't select a 4 or 6 in. pulley to transmit 10 h.p. if there were any danger of slip. Large pulleys are always the best slip preventive because they afford a much larger contact surface between belt and pulley. Large surface and close intimate contact are the great essentials. Belts and pulleys should always be so treated and handled that these two necessities will be provided.

The selection of small pulleys, just because they cost less, is a serious error, and a common one. This can be easily proved from the friction standpoint alone as indicated in Fig. 2. There I have drawn a 1-ft. pulley used for transmitting 10 horse power. The pull on the tight side, necessary to transmit 10 h.p. is computed to be 1,000 pounds, which pull, of course, must be resisted by the bearings. The greater this pull the greater will be the power consumed by the bearings in friction, friction usually being directly proportional to the pull. Then, by using a pulley three times as large, in diameter, the force necessary to transmit 10 h.p. becomes only 1/3 as much, for the peripheral speed is three times greater, and, in consequence, the bearing friction will be only one-third as great as where the 1-ft. pulley is used. Besides, you have all the non-slip and other advantages as already enumerated.

One of the most deplorable errors is the use of "old pulleys" that have been lying around the mill for years. The superintendent is prone to look upon the purchase of a new pulley as a needless waste of money if the old stock pulley can be made to do the work through some makeshift or other. If the old pulley is "just right," well and good, use it. If it is "almost right," well and good. But if it is either too narrow or too small in diameter, keep it in stock until it can be used.

There are few power transmitting mediums that consume more power than a slipping belt. I know of instances where from 10 to 20 per cent. of the speed is lost through slipping belts on pulleys that are too small. Every per cent. of speed lost means one per cent. of power lost, plus the bearing friction loss. Thus, if the initial power is 100 horse, and if the speed loss due to belt slip is 20 per cent., 20 h.p. is lost constantly. Large pulleys and proper belt care would save that loss.

Selecting the Pulley

As for selection of kind of pulley, there are three principal kinds now in use—paper, cast iron, and wood. To determine the horse power that these pulleys will carry the following formulas may prove useful. They are applicable for speeds up to and including 3,000 ft. per min., but no further. Beyond that speed the power transmitting capacity diminishes.

For paper pulleys—

$$\text{Horse Power} = \frac{S\,W\,T}{150}$$

where S = speed of belt in ft. per min.;
W = width of belt in inches;
T = thickness of belt in inches;

For cast iron pulleys—

$$\text{Horse Power} = \frac{S\,W\,T}{200}$$

For wood pulleys—

$$\text{Horse Power} = \frac{S\,W\,T}{300}$$

It is rarely necessary, however, to compute the width of the pulley. The most important thing is the belt width, which is found as already explained. Such a belt, thus determined, is amply wide for paper, cast iron, or wooden pulleys. The above formulae merely show that paper pulleys are less liable to slip than cast iron or wood, and that wood pulleys are most liable to slip. However, again, as I have already said, use large pulleys.

In these days of high speed cutting we find that a bad habit has been handed to us by our ancestors. They did not do it intentionally, of course, but we can give them a part of the blame because they were slower. This habit is illustrated in Fig. 3. A is a pulley on a motor running at high speed. It is belted to a large pulley on B in order that the main line shaft may be made to run slow, at about, say, 400 r.p.m. A few years ago all main shafts were virtually "standardized" to run at 300 to 400 r.p.m. Then, a slow speed belt was used to connect shafts B and C, which was certainly all wrong, economically, especially where the distance between B and C is great. Finally, in order to make the speed of the saw what it should be a large pulley was put on C and belted to the smaller pulley on D. I remember distinctly that this method was taught to us in college as being the proper way, but now-a-days it should be abandoned as quickly as possible in favor of direct connection of motor or other high speed driver to the saw, or, if a line shaft is necessary for distribution of power to other machines run the shaft in ball bearings at high speed. The saw can then be belted directly from the high speed main shaft, making a much simpler and less expensive arrangement. It is good practice, where possible, to connect the main shaft direct to the motor—without belting. The money thus saved in pulleys and belting will sometimes more than pay for the ball bearings. It is not so satisfactory to run shafting at high speed in plain bearings because of the much greater friction. In any case, where shafting is to be run at high speed, it must be well aligned. Prof. Goodman, of England, shows that with good alignment a shaft in plain bearings will transmit power through a distance of 6,000 feet with an efficiency of 80 per cent., i.e., the shaft could be 6,000 feet long. With ball bearings the shaft could be 120,000 feet long and the efficiency would still remain 80 per cent. A good rule for determination of power consumed by plain bearings with ordinary shafting is given by Prof. Goodman as follows: "A 2-inch diameter shaft running at 100 r.p.m. requires about 1 horse power per 100 feet when all the belts are on the pulleys. The horse power increases directly as the speed and approximately as the cube of the diameter.

This may be expressed thus:

$$F = \frac{N\,L\,D^3}{80\,000}$$

where D = diameter of shafting in inches;
N = number of revolutions per minute;
L = length of shafting in feet;
F = horse power consumed by friction."

Selection of Shafting

In selecting shafting, much depends upon the kind of material of which the shaft is made. A cast iron shaft, of course, must be much larger in diameter than a steel shaft to transmit the same amount of power. However, nearly all shafting is now made of steel, and it is most convenient to make deterimnations for size directly from the manufacturer's catalog. Nearly all hardware catalogs give complete tables, and they, to be sure, are trustworthy. In case the buyer should want to compute the size for himself, the formula is, for steel:

$$D = \sqrt[3]{(H.P./N)}$$

where D = the diameter of the required shaft in inches;
H.P. = horse power to be transmitted by the shaft.
N = revolutions per minute of the shaft.

Logging Camp Sanitation Rules

After investigating a large number of logging camps in the State of Wisconsin, Mr. L. E. Spencer, of the State Board of Health, has presented an interesting report upon camp sanitation regulations, which concludes with the following proposed rules:

From this report, and from ideas gathered from other states and the Dominion of Canada, where similar rules are in effect, the following regulations were formulated.

I will take up these regulations in numerical order, and give very briefly some reasons for their adoption.

Regulation No. 1.

Hereafter operators, contractors, and all other persons who may establish an industrial camp or camps, for the purpose of logging, ice cutting or any of like indutsry, or for the purpose of construction of any road, railroad, or other work requiring the maintenance of camps for men engaged in such work, or any other temporary or permanent industrial camp of whatever nature, shall report to the State Health Officer concerning the location of such camp or camps and shall arrange and maintain such camp or camps in a sanitary condition as outlined in these regulations.

This regulation is self-explanatory. In case the health officer's assistance is needed it will make it much easier to reach camp promptly.

Regulation 2.

The term "camp" as used in these regulations shall include any lumbering, mining, railway construction or other camps where men are employed and housed in temporary quarters; such as cars, tents, buildings or other enclosures other than the bona fide homes of the employees.

Regulation 3.

Every camp must be located on a site that is high, well drained and shall be selected with regard to its healthfulness.

Regulation 4.

The general scheme of the structure of the camps should be as follows: Stable and kitchens should be separated by a distance as great as consistent with the natural topography of the land and so located as to prevent any pollution of the water supply, with the necessity in mind for convenient access to the stables. The stables

and toilets for the men in the camp must be so located that their natural drainage is away from the water supply.

Passing by regulations 2 and 3, which are self-explanatory, will say that regulation 4 we believe to be along the lines generally followed by camps. It is nothing new or unusual and in the majority of camps good judgment is used in this matter.

Regulation 5.

The use of the toilets provided for the men should be made obligatory, and instant discharge of any employee polluting the soil must be rigidly enforced.

This is only good sense and common decency, and I think all will agree with me that the ruling is reasonable.

Regulation 6.

Every building car, tent or other enclosure occupied as sleeping quarters by the employees engaged in any camp or works shall contain at least 225 cubic feet of air space for every occupant thereof and shall be supplied with windows for purposes of light and ventilation, constructed to open.

It is possible there may be some difference of opinion as to the cubic air space necessary for each occupant of a camp. The ordinary ruling, in most States, covering hotels and other public places, calls for about 400 cubic feet. When you stop to consider that 225 cubic feet only means a space of 6 ft. 3 in. by 4 ft. by 9 ft., I think you will agree it is not putting the space too great. Of course the matter of ventilation has a great bearing on this, and with extra good ventilation, less air space might be sufficient in some instances.

Regulation 7.

In addition to windows there shall be other means for ventilating sleeping, dining and living quarters by having inlet and outlet ducts of sufficient area provided to keep the atmosphere reasonably pure. Such provision shall be to the satisfaction and meet the approval of the State Board of Health.

We all know that sunlight and dry fresh air are very beneficial to health. We also know that poor ventilation and dark rooms lower the vitality of the occupant. The average humidity of the outside air is 60 per cent. to 70 per cent. of the total saturation, while due to poor ventilation and other factors, the humidity of the average building heated by stoves, in the winter time, is only about 30 per cent. of total saturation. The heat of the stoves, in most instances, completely drives out the moisture, unless additional moisture is provided at all times by good ventilation. In just the same way as the air is dried, naturally the moisture of the skin is reduced in amount, and it is stated by good authorities that the activity of the lungs is influenced by the condition of the skin. The importance, therefore, of good ventilation in camps can be recommended as an economic factor, if for no other reason, in that it increases the energy and efficiency of the crew.

"Inlet and outlet ducts," referred to in this section, may be interpreted as calling for roof ventilators, which may be for the purpose of lighting also. If sash is used, there should be at least one opening 2 ft. by 2 ft. for each 500 feet of floor area, or fraction thereof. This may be fitted with an ordinary barn sash (of four 10 in. by 10 in. lights), hung on hinges, so as to be easily opened and closed.

If the camp is well lighted by side windows, the skylight may be eliminated, and ventilator ducts installed in the roof. These may be made of hemlock ceiling or other cheap material, and have an inside measurement of about 15 inches square for each 500 square feet of floor area. The flue should be capped and trimmed out on top, except at the corners where the cap is supported, to allow a circulation of air and at the same time protect the camp from the elements. Ventilator ducts constructed in this way would be stationary, and not easily closed, and possibly for that reason would be preferable to sash, which could be easily lowered.

Of course it should always be borne in mind that the cold outside air should enter at or near the ceiling, so it will blend with the warmer air which is constantly rising, and thereby become somewhat warmer before it settles to the floor.

It is realized that it is only in exceptional cases that any regulation of this kind may be needed, as many of the camps of the principal loggers operating from year to year are already provided with ventilation area in excess of these requirements.

Regulation 8.

The kitchen and eating house should be effectively screened when used during the summer months. The bunk houses should also be screened if used during the summer. All food supplies must be carefully scerened from flies and other vermin.

One of the principal reasons for screening the kitchen and food stuffs is to prevent disease. It is an established fact that flies may carry the excrement which has not been promptly and thoroughly disinfected, from some case of typhoid in the neighborhood, or from some open vault that has been used by a typhoid carrier, to someone's food, and so introduce the germs into another system.

Regulation 9.

All garbage must be collected in covered cans and incinerated, buried, fed, or hauled away to some remote place.

This regulation may be interpreted very broadly. It simply means that the garbage shall be disposed of in some manner, a considerable distance from the camp.

Regulation 10.

Non-inflammable refuse, such as tin cans, should be collected daily, and placed in a deep earth pit and covered with a light covering of earth each day, or covered with oil and burned over. During the winter season, this material as well as the garbage, may be deposited at a point at least 100 feet from the camp, and then properly cared for at the first opportunity in the spring.

Regulation 11.

Waste water from the kitchen, wash and bunk houses in summer camps must be carried to trenches lined with quick lime, and at a safe distance from water supply.

A good reason for the proper disposition of waste water from the kitchen is that it contains considerable organic matter, which is subject to decomposition. This causes a stench, and flies breed rapidly.

Regulation 12.

There must be a thorough and systematic scrubbing of kitchen and eating-houses at least once each week. The floors should be swept daily. (Dry sweeping is prohibited by law.)

I think that most camps are at present receiving more attention than this regulation suggests.

Regulation 13.

The supply of water for the camp should be carefully decided upon, and an adequate supply free from any possible chance of contamination must be provided.

The location of the well depends upon the character of the soil, depth and kind of well and the natural topography. Into a surface well, the soil water seeps from a considerable area about it, probably 50 feet to 100 feet. This water seeps steadily toward the stream or spring which drains the neighborhood. The direction and flow of the soil water should be noted, and the toilet and stables located down stream from the well. Wells may be polluted with typhoid germs from near-by vaults. This usualy happens by surface water, during rains, washing the contents of the vault toward the well, which is not walled with cement above and below the surface, and not raised properly above the ground.

Regulation 14.

All sick from whatever cause must be isolated from the remainder of the crew immediately.

I think this will be interpreted that those who become ill with some communicable disease should naturally be sent away from the camp or isolated, if possible, in the interests of the remainder of the crew.

Regulation 15.

All persons engaged in the care of the premises, and handling of the food, particularly cooks and helpers, should be carefully examined and particular attention paid to the point as to whether or not they have suffered from typhoid fever or tuberculosis within recent years.

This rule applies to typhoid, especially, as a person who has had typhoid fever in a recognized or unrecognized form, from one to a great many years previously, may still carry the germs of the disease in the bowels and sometimes in the bladder. It has been shown that about 3 out of every 100 persons who have had typhoid fever, continue to carry the germs of the disease. By "carriers" I mean people who have had typhoid fever years before and still unknown to themselves, have the germs in their systems. Those who are sooner or later recognized as such are those whose occupations bring them in contact with food supplies—cooks especially. When a cook gives a history of several occurrences of typhoid fever in a number of places where he has worked, a bacteriological examination of his bowel discharges will nearly always show the presence of typhoid germs. It can be seen from this what a great amount of trouble can be made by having a cook who is a "carrier" in a camp.

Regulation 16.

Floors in bunk houses should be swept daily and scrubbed with hot suds at least once each week. (Dry sweeping is prohibited.)

This, I think, is reasonable, and is probably carried out in the majority of camps as fully as is required.

Regulation 17.

All bunk houses should be provided with floors, and the lower tier of bunks should be raised at least six inches above the floor.

This is only asking what we consider reasonable for nearly all operators and jobbers. It is only in rare instances that the bunk houses are found without floors, and the first tier of bunks on the ground.

Regulation 18.

All blankets should be hung outside for airing at least twice a month. Bunks should be furnished with clean straw, hay, or ticks filled with same. Mattresses are not recommended as they cannot be cleaned easily.

Cheap mattresses are used in some camps, but this board is of the opinion that straw or hay is preferable if changed occasionally, as it is impossible to clean and disinfect one of these mattresses when it is soiled or infected.

Regulation 19.

Toilet facilities shall be so constructed at every camp that they may be effectively cleaned of the contents. Pits shall not be less than four feet in depth and the contents shall be treated daily when used during the summer season, either by a solution of milk of lime (strong whitewash of fresh slacked lime) one gallon to every square yard of pit, or the sprinkling of five pounds of powdered chloride of lime to the same area. A liberal sprinkling of fresh chloride of lime shall also be applied daily to the floors of toilets and lavatories. All closets shall be at least 100 feet distant from the water supply, and so located that drainage from vaults toward water supply is impossible.

A fault common to camps is the lack of good toilet facilities. By keeping a little whitewash handy to the toilet, or a little powdered lime, the vault can be kept in much better sanitary condition.

Regulation 20.

Whenever smallpox, diphtheria, or scarlet fever shall appear in any camp, it is the duty of the physician in charge, the contractor or the superintendent of such camp to notify the local health officer in whose district such camp is located, within twenty-four hours, and it is the duty of such health officer when thus notified, to see that said patient is removed to a proper place of isolation, or to place such patient or patients under quarantine at such camp, and the contractor or superintendent, when necessary, shall provide suitable accommodation for such patient or patients.

This is practically the same as the old health rules governing contagious diseases, and of course it will be policy for operators of camps to promptly call the health officer of the district in which the camp is located, to remove the patient to some place of isolation, so he will not infect others of the crew; thereby avoiding expense and trouble, not only for the township, but for the operator as well.

Regulation 21.

Copies of these regulations shall be hung or posted in every kitchen, dining-room, sleeping room or other building in camps where employees may frequent the same in order that all may be conversant with their requirements.

The following information should be furnished on the establishment of any camp and thereafter annually to the State Board of Health, Madison, Wis., by the owners or operators of all camps to which the foregoing regulations apply. Returns to be made each year during the first month of the operation of the camp.

Schedule

Name of Owner or Agent ... ...
Name of Camp or Camps ... ...
Location of each Camp ... ...
Easiest Means of Access to each Camp ... ...
Number of Men Employed ... ...
When was Camp Established, and how long will it be Occupied ...

The Motor Truck in the Lumber Business

The motor truck has made great advance of late in its invasion of the lumber business and from all present indications the future will see its wide use in connection with the delivery of stocks of lumber. The use of a truck, to put the matter briefly, enables a company to make quicker, larger and more satisfactory deliveries. It reduces the cost of delivery, simplifies the business of the delivery end, and, last but not least, advertises the owners of the truck as a firm with modern business methods, and capable of making quick delivery over a wide area of country.

The Boake Manufacturing Company's Trucks

The Boake Manufacturing Company, Limited, Toronto, bought their first Packard truck in July, 1912, after having had an expensive experience with a truck not properly built to stand the severe conditions of lumber hauling. From his initial experience, however, Mr. Boake had learned the great advantages of a motor truck in the lumber business equipped with quick loading and unloading device, and adapted a Packard body which had been in use in Portland, Oregon, to his own requirements. The result is a body with a platform of the ordinary height and having four rollers in the platform. Trestles, as shown in the illustrations, are used, the load being piled on the trestles in such position that the truck can be backed under the load, knocking down the trestle with the single leg and rolling the load on to the truck. When the load lifts off the rear trestle, it can easily be jacked forward into position with a crowbar.

To dump the load, the crowbar is used to jack the load off in the same way as an ordinary roller-bolster lumber wagon is operated, and when the load has tipped the truck is drawn out from underneath and the load drops to the ground without causing any more damage to the lumber than if it had been dumped from a horse drawn wagon.

With this device it was found that the average time required to load was from 5 to 8 minutes and that the load could be taken off in from 3 to 5 minutes. A number of sets of trestles were made and placed at convenient points throughout the yards and in the mill, so that one or more loads could always be in readiness for the truck. Mr. Boake's trucks are thus kept constantly on the road, and it is generally acknowledged that no one in Toronto operates motor trucks to any greater advantage than his company.

After six month's experience with his Packard, Mr. Boake pur-

Boake Mfg. Co.'s Packard Truck Taking on a Load

Boake Mfg. Co.'s Packard Truck Delivering a Load

chased an additional truck and at the present time has his order in for the third Packard. During the busy seasons this company often operate their trucks 14, 16 and even 18 hours a day, deliveries being made in daylight to city jobs where it is necessary to arrive while the men are at work, and long runs being made to surrounding towns in the evenings.

During the month of July each of the trucks averaged 51 miles per day and Mr. Boake estimates that each of them did the work of three teams. In speaking of the work of his trucks recently, Mr. Boake said:—

"Besides enabling us to give very much better service to our customers and simplifying our entire delivery problem, we find the truck to be of value to us because of the business it brings which we would not otherwise get. We have repeatedly received orders from people whom we had never heard of and who stated they had seen our trucks pass their places on the country roads and knew that we were in position to make delivery to them. Also, at slack seasons of the year, we are enabled to take orders at a distance from our plant which would be prohibitive if we had to depend upon our horses. I have been surprised many times at the ability of the trucks to make deliveries alongside of new houses where the ground is soft and the conditions not favorable to motor truck use. With the block tires we are able to get traction practically any place where there is any bottom whaever, and while our trucks occasionally get stuck in the spring and fall, we have no more difficulty in this respect than we would have with our teams.

"I have given considerable thought to the question of depreciation on motor trucks and have come to the conclusion that 100,000 miles is the power figure on which to base depreciation. For example, if our trucks did 15,000 miles in a year, we would charge off 15 per cent for depreciation for that year. Just the other evening our No. 1 truck was leaving the yard as I was going home to dinner and I got on the truck with the driver, and so far as I could judge, the truck was running as well as when it was new. I suppose one must charge depreciation, but as yet I can see little sign of the trucks ever wearing out.

"I consider the essentials of successful truck operation in the lumber business, to be first, buy a good truck; second, have a body which can be quickly loaded and unloaded; third, get a good man to drive it, and fourth, always have your loads waiting for the truck and thus keep the truck on the move."

Gibson, McCormack, Irvin Company's Packard

A Packard truck belonging to the Gibson, McCormack, Irvin Company, Limited, Toronto, was delivered in June, since which time it has been almost exclusively engaged in long haul work from West Toronto to the East Toronto section and in trips to Islington, Cooksville, Brampton, etc. It is a Packard of three ton capacity and equipped with roller body similar in design to that used by the Boake Manufacturing Company. Before the truck was purchased, Mr. Irvin was doubtful of his ability to keep it busy on long hauls, but in common with other truck owners he has found that the truck itself is a good advertisement and that a certain amount of additional business comes from the mere fact of ownership of a truck.

Reid & Company Operate a Packard

Reid & Company, or Toronto, have owned a Packard three-ton truck since April, 1913. It is equipped with a roller body and has a platform length of 14 feet. Special brackets were placed on the front bumper which permit of placing extra long lengths of lumber at each side of the driver's seat, although this arrangement is not necessary on any lumber of 22 feet length or less. As Reid & Company are located on the Esplanade, practically all of their hauls are up hill and this truck has proved its superiority to horses time and again in extremely hot weather and in slippery weather.

R. Laidlaw & Company's Truck with a Load of Shingles

R. Laidlaw and Company, Toronto, and J. B. Smith and Sons, Limited, Toronto, also operate motor trucks in connection with their large delivery business. A picture of the Laidlaw Company's truck is shown in one of the illustrations.

Canada Lumber Company's White Truck

The accompanying illustration represents a motor truck operated by the Canada Lumber Company at Weston, Ont., which was furnished by the White Company, Cleveland, Ohio. The Canada Lumber Company have operated this truck for two years and are convinced that it is not only a cost saver, but a labor and trouble saver, in connection with their work. Figures which they have prepared in connection with the operation of the truck during 1913, show that, driving over the worst possible roads, and making two trips a day, the truck cost on an average twenty-eight cents per ton mile, or an average per day of $11.10, on a basis of an average run of forty miles per day, carrying a load of three tons. These figures were compiled on work from November, 1912, to June, 1913. When the truck crossed the 6,000-mile mark, the books were balanced, and showed the above results. The truck reached the 6,000-mile mark on 564 gallons of gasoline, or an average of 15.8 miles per gallon.

Referring to these figures, Mr. L. F. Strickland, of the Canada Lumber Company, reports that the company were then buying their tires on a 6,000-mile guarantee. In estimating the total cost of the car and its operations, they included gasoline, oil, grease, repairs, incidentals, a depreciation of 10 per cent per annum and interest at 5 per cent on the investment. The estimated cost of the oil moreover, was placed at 25 cents per gallon, the retail price, whereas the actual cost of the oil, which was purchased wholesale, was fourteen cents per gallon. There were certain charges entered also in bulk which should have been worked out on a proportionate basis covering a longer period, so that the costs, as finally figured out, were decidedly conservative.

This truck is running on trips of about eight miles each way, over bad country roads. In the spring and fall of the year the truck is down practically to its axles in clay. It goes into all conditions of holes, etc., around new buildings. The company report that they have had no difficulty whatever in getting the car to do its work. They estimate that the car is dong the work of six teams of horses, and say that it is a question whether six teams of horses would be able to go the distances required in the course of the day's work.

Boake Mfg. Co.'s Two Packard Trucks and a Trailer

Canada Lumber Company's White Company Truck

A Little History of Business Progress

Forces Which Have Led to Rapid Expansion in an Important Machinery Manufacturing Firm—The E. Long Manufacturing Company, Orillia, Ont.

A POINT upon which most business men agree, is that there was never a business that "just grew." The story of the progress and success of any business undertaking, is just the story of the efforts of the group of men, or succession of men, who have pulled, and pushed, and co-operated with one end in view; and when we see more than usual success fall to any business, our inteerst lies in the more than usual human effort that lies behind.

When we visited the splendid modern factory of the E. Long Manufacturing Company, at Orillia, a few days ago, it presented such a remarkable contrast to the deserted group of buildings, just across the track, that the two plants would not be associated in the mind of the casual observer. The disparity in size is so marked that it would not seem possible that the one should develop from the other, yet the big factory, already showing signs of becoming too small, represents just one step in the progress of this modern concern, and it was not so very long ago that the old plant was deserted, and the scene of activity was moved across the track.

But this recent development is probably not so spectacular to those who shaped the policy, and laid the foundation of the business, some time ago.

Origin of the Business

It was back in 1878, when Robt. Brammer bought out Bateman's little machine shop, that the history of the plant, as a manufactuirng establishment, really started. Previous to that, it had only been a repair shop, but Brammer had an idea that it would be good business to have something to work on between jobs. He was ambitious, and he saw an opportunity in a shingle machine, the patent on which was owned by I. M. House. This machine evidently gave its builders quite a lot of trouble, but Brammer was not the kind to be stuck by a shingle machine. A patent of Wm. Wiley's, on the feed works, was incorporated, and Brammer himself spent so much time on it, and to such good purpose, that he at last produced an article, the efficiency of which gave him quite a reputation throughout Ontario's shingle making territory. This machine, known as the "Clipper" is still made by the E. Long Company.

Brammer did not allow experimental work to interfere with his established business, but, following the success of the "Clipper," other machines, needed in the shingle business, were, from time to time, developed and manufactured.

Additions were made to the little shop as the business demanded, and when Brammer died in 1895, the factory was a well-etsablished, going concern, with a policy. His picture occupies a prominent place in the present office of the company, as a tribute to his memory, and to keep alive the Brammer idea.

After Mr. Brammer's death, the business was run for a time by the Brammer Estate, then by Long and Thompson. The financial stringency made the history of the business uneventful during that period. Any great expansion was impossible, and the business was carried on without any additions of note being made to the line.

Birth of the Present Firm

In 1900 the E. Long Manufacturing Company was formed, and it was about that time that the possibilities of entering the wider field of the wood industry were first considered.

The first saw mill machine built was a carriage, and it was a good one. More carriages were ordered, and just as the perfection of the "Clipper" led to a complete line of shingle machinery, so the "Long" carriages, which first earned the reputation of "Long Quality," led to a line of lumber manufacturing machinery that now includes practically everything used in this great industry. The reputation for quality, gained by the carriages, was studiously lived up to in the subsequent machines, and the development of the line was solid, rather than rapid. All the energy of the plant was confined to the one business in hand.

It is, then, not surprising that along about 1908, the shop, with all its additions, became too cramped to handle the work. The new plant was projected, and was occupied in the sprng of 1909.

The present shop is of reinforced concrete, "daylight" construction. The main building is divided longitudinally, the roof on the front portion being carried considerably higher to accommodate the big travelling crane that serves the erection shop. This construction also admits a greater amount of light right into the centre of the shop, than could otherwise be obtained. The rear portion of the main building is the machine shop, which is served by several smaller travelling cranes, and a number of gib cranes, conveniently placed. The arrangement of the machines has been made with great care, to obtain the most direct possible routing of material; various classes of work being confined to different portions of the erecting shop, to carry out this idea. The shop is electrically driven throughout, each machine having a separate motor, with the exception of some of the smaller ones, which are grouped.

The wood working and pattern shops are in the wing, extending to the rear of the main building, at the right hand end. This end of the erecting shop is devoted to setting up carriage and saw frames, machinery into which a certain amount of wood construction enters.

The left hand end of the main shop is used for structural work, and in the wing, extending from this end of the building, are the forge and plate shops. The tool room and stock room are in the angle between the forge and machine shops, convenient to both places.

Back at the end of the forge shop wing, is the foundry. This occupies a building of the same height and construction as the erecting shop. The whole floor is served by a single travelling crane.

For heating the plant, a hot air blast system is used. Steam coils are supplied by an 80 horse-power boiler, and through these coils, air is forced by a 72-inch fan, and is distributed to all parts of the plant.

There is an excellently appointed room for the men, containing lockers, and lavatories.

The pattern storage occupies a separate building, located at a

E. Long, President.

The old factory of the E. Long Mfg. Co., Orillia, Ont.

distance from the main group, but convenient to both pattern shop and foundry.

Shipments from the shop can be made direct over any of the three big systems that enter Orillia; the G. T. R., C. P. R., and C. N. O. The shop is supplied with two spur tracks, one entering the main building for loading, under the crane; the other running along the outside of the shop past the plate shop, stock room, heating plant and foundry, for incoming supplies.

The office, built in general keeping with the shop, has an interior beautifully, yet simply, finished. The ceilings are lofty, and panelled in quartered oak. The main floor contains the offices of the president, secretary, superintendent, and the general office. The vault is carried up through the two storeys, the upper part being used by the engineering department. On the second floor of the office is the drafting room, blueprint room and the photo department with its dark room.

The whole plant is absolutely fireproof, a fact which means much in dependable and continuous service to the lumberman.

The Men Who Are Responsible

The dominant figure in the more recent upbuilding of the business has been Mr. Long. Mr. Long was born on a farm in Oro township, a short distance from Orillia. In 1881 he started as an apprentice with Robt. Brammer, and was thus in touch with the business in its earlier days. After completing his apprenticeship, he went to Chicago, where for ten years he was associated with the Weir & Craig Manufacturing Company, with whom he remained until he returned to Orillia in 1895, to become the administrative head of the business with which he started. It was Mr. Long who felt that the shingle business was too circumscribed, and who first saw the possibilities of serving the larger lumber industry. Mr. Long is a specialist, and makes a doctrine of doing one thing well. Once started on saw mill machinery, the attention of the company has never been allowed to be diverted from that line, and the result of the wisdom of this policy must be highly gratifying to the one who has carried it out. Mr. Long has plenty to do, is always on the job, and enjoys it immensely, but he also takes a keen interest in municipal affairs, especially in connection with the Town's Hydro-Electric plant at Ragged Rapids. When the Water, Light and Power Commission was formed two years ago, Mr. Long was selected as chairman, a position in which he is still making things go.

Mr. Frank Smith, Vice-President and Superintendent of the company, was also connected with the firm in its earlier days. He served his time under Long and Thompson, but, like Mr. Long, he went to the States after learning his trade. Going to Michigan, which was at that time the very centre of the lumber indutsry, he gained much practical experience in the mills there, at first hand. He was with the Wickes Bros., at Saginaw for several years, and that he made good use of his time in the shops and around the mills, can be seen by many of the very practical devices embodied in the machines the company are building, as well as by the clock-work organization by which they are built. Mr. Smith returned to Orillia in 1899, and has had his full share in the development that has taken place, up to the present time.

W. W. McBain, Sec-treas.
E. Long Mfg. Co.

Frank Smith, ice-president
E. Long Mfg. Co.

W. W. McBain, the Secretary-Treasurer, has spent practically his whole business career with The E. Long Manufacturing Company. As to his qualifications for holding this position, we need say no more than that he is an expert accountant, is of Scotch descent, and possesses the peculiar ability attributed to that race for careful financing.

In going through the place, we noticed particularly, a number of different machines that are built in single unit castings. One fine example of this is a big Pacific Coast Edger, in which the main frame, outboard bearing, bridge trees, the housings to carry the press rolls, and even the lower head of the cylinder, are all made in a single casting, as intricate as it is bulky. Such a machine could not be made in a shop less completely equipped than this one, yet we saw it handled and machined with the greatest ease, all as part of a day's work. This same tendency to unify machine castings we saw in a number of other instances, and of everything we saw in the plant, we believe that this act of concentrating to gain efficiency, is the one most truly typical of the establishment.

That they will continue to grow, we have no doubt. They tell us confidentially that they have just started.

A movement is on foot to make a national park out of 750 acres of green timberland in the lower Fraser Valley, a few miles south of New Westminster.

The new factory of the E. Long Mfg. Co., Orillia, Ont.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers Ltd., Toronto, Ont. 7-tf

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WANTED—3 x 3 x 18 in. dry Rock Maple squares. The B. H. Piper Co., 335-349 Somerville Street, Manchester, N.H., U.S.A. 15-16

Wanted

One or two blocks of Spruce, also Pine, must be well manufactured. Apply Box 31, Canada Lumberman, Toronto. 11-t.f.

Wanted

One or more cargoes of 1 and 2 in. Spruce for delivery at a Lake Erie Port.

E. C. BRADLEY LUMBER CO.,
14-17 Cincinnati, Ohio, U.S.A.

Wanted

1,000,000 ft. Spruce, 1-in., 1¼-in. and 2-in. If not already cut will give sawing instructions. Apply Box 30, Canada Lumberman, Toronto. 11-t.f.

Wanted

Soft Elm, 4/4 log run.
Birch, 5/4 log run.

Quote lowest prices F.O.B. mill for dry or new cut.

E. M. NICHOLSON,
Board of Trade Building,
9-t.f. Montreal, Que.

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

To Manufacturing Lumbermen

Wanted—Clear Birch, kiln dry preferred, cut to following measures: can take about 22,000 pieces per year in two deliveries, viz.: 8,000 cut 21 in. x 5 in. x 3 in. and 3,000 cut 28 in. x 5 in. x 3½ in. Quote prices C.I.F. London, Eng. Address Geo. Care Ltd., Victoria St., Norwich, Eng. 15-17

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

FOR SALE—Three or four carloads of XXXX Cedar Shingles. Also 15,000 small Cedar Ties, good for construction, siding or radial purposes. Quick shipment. Will make the price right.

The John Carew Lumber Co., Ltd.,
15-16 Lindsay, Ont.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

Lumber For Sale at Seguin Falls

Dry and ready for immediate shipment, will ship mill run culls out. Birch at $23 per M. ft., Hemlock $16.75, Pine $25 per M. ft. F.O.B. cars.

	Feet
1 and 2 in. Birch, 12-16 ft. lengths...	20,000
1,715 pcs. 2 x 4, 10-18 ft. Hemlock..	13,470
1,416 pcs. 2 x 6, 10-18 ft. Hemlock..	17,476
4,295 pcs. 2 x 8, 10-18 ft. Hemlock..	72,907
1,433 pcs. 2 x 10, 10-18 ft. Hemlock.	51,911
1,849 pcs. 2 x 12, 10-18 ft. Hemlock.	46,974
Hemlock, 1-in., 10-18 ft.	54,300
1 in. x 2 in. Pine	8,300
	285,338

Apply to MONTEITH BROTHERS,
14-17 Rosseau, Ont.

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale-Machinery

Woodworking Machinery For Sale—2 10-in. four side moulders; 2 24-in. planers, matchers and moulders; 1 12-in. Crescent jointer; 2 Ideal variety saw tables; 2 6½ ft. iron frame swing saws; 1 42-in. Fay power feed band rip saw; 4 30-in. Ideal pedestal band saws; 1 Cowan double head panel raiser; 1 No. 51 Crescent universal woodworker; 1 25 gallon Advance glue heater with warming chambers for 8 2-quart pots. H. W. Petrie, Limited, Toronto. 16

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

Position as Band Saw Filer wanted in mill or factory where there are band resaws. A1 references. Box 71, Canada Lumberman, Toronto. 16

Position wanted as practical sawmill foreman. Twenty years' experience. Can furnish the best of references. Address Box 51. Canada Lumberman, Toronto. 14-t.f.

Wanted position as shipper or foreman or both in small plant, soft or hardwoods, twenty-five years' experience. Can furnish first class references. Box 56 ,Canada Lumberman, Toronto. 15-17

WANTED—Position in Saw or Planing Mill. Office and mill experience. Could take charge of Sales, or act as Mill Foreman or Yard Foreman. Excellent references. Box 44, Canada Lumberman, Toronto 13-16

EXPERIENCED SUPERINTENDENT wants position to take charge of lumbering operations, bush, mill, etc. Desires a change. Can get results and furnish the highest credentials. Box 46, Canada Lumberman, Toronto. 13-17

Woods or Mill Manager—Position wanted in New Brunswick by thoroughly experienced manager, who has had 17 years' experience in woods and mill management, has always been successful in handling large crews and understands all details of the work, is a first class bookkeeper. Has been for upwards of ten years with firm of lumbermen at present employed by. First class references; can be at liberty in two months. Address in first instance Box No. 57, Canada Lumberman, Toronto, Ont. 15-16

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

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Wanted—Man with experience in getting out saw logs from stump to mill. State salary and references. No boozers need apply. Box 62, Canada Lumberman, Toronto. 15-16

Woods Manager Wanted

Thoroughly practical man required to take charge of large woods operation; must have considerable experience in driving. Salary one hundred and twentyfive dollars month, with increase after ability is shown. Apply by letter ,stating experience and references, to Box 200, Canada Lumberman, 119 Board of Trade Building, Montreal. 15-16

Business Chances

For Sale

Timber Limits, principally Hemlock, also Pine, Spruce and Hardwood. Also Saw-mill, logging and driving outfit. For particulars address Box 52, Canada Lumberman, Toronto 14-17

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

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An Opportunity—Sawmill Wanted

for Hardy Bay, north end of Vancouver Island, B.C. Fine harbour, projected terminal for C. P. R. Free site and bonus for responsible parties. Large amount of timber (gratis) in immediate neighborhood. Write for full information. Bagshawe & Co., 214 Pemberton Building, Victoria, B.C. 15-1

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale—Cheap

400 acres of good land well timbered with virgin timber, beech, hard maple, red and yellow birch, ash, hemlock, basswood, elm, spruce, and cedar, containing about 2,000,000 feet of lumber. Never had fire. Situated about two miles from Emsdale Station, G.T.R. Slightly descending road with no hills. Price $10 per acre. Investigate. Address B. D. M. Box 22, Emsdale P. O., Ontario. 16

For Sale
Timber Limits and Saw Mill

Limits No. 59 River Gatineau, 3 square miles, and No. 483 Grand Lake Gatineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Cedar, Pulpwood, etc., also New Waterous 8-ft. Improved Double Cut Band Mill, fully equipped and up to date 200 H.P. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggons, Trucks, etc., Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q., about 50 miles from Ottawa. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

GUARANTY TRUST COMPANY, LTD.,
802 E. T. Bank Building,
263 St. James Street,
13-16 Montreal, Que.

Tenders for Fallen and Burnt Timber

Tenders will be received by the undersigned up to and inclusive of the 15th day of September, 1914, for the burnt and fallen timber on Berths 2 and 4, Township of Nipissing.

Also tenders will be received for Berths 2 and 4, Twp. Nipissing and Berth 4, Twp. Gurd.

The highest or any tender not necessarily accepted. For particulars address

ALEX. BLANCHARD,
Box 265 North Bay, Ont.
15-18

Miscellaneous

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

A Notable American Lumber Ship

Some interesting particulars are to hand respecting the American steamer Atlantic which has been specially designed for the lumber carrying trade between Boston and Seattle, by way of the Panama Canal. Special consideration has been given to stowing lumber cargo in longest lengths, as well as shipping the longest sticks of Douglas fir carried as a deck load. In view of the regula-

tions of the British Merchant Shipping Act concerning the carriage of timber on deck, the construction of the Atlantic is specially interesting, as the general idea in America is that provided sufficient stability be given a vessel and special arrangements made for securing a deck load, so that it cannot take charge in any contingency likely to be experienced, there is no special danger attached to the carrying of deck loads. The three large holds into which the vessel's hull proper is divided have been constructed without any obstructions whatever, enabling the hold cargoes to be efficiently and economically stowed, and for the deck load, provision has been made by making not only the midship quarters in the form of an island house, but the forecastle has been similarly constructed, enabling long spars to be rove through the large lumber ports in each bow and passed along deck for an unobstructed length of 300 ft. The island feature of these two erections, together with solid boatswain store houses at the base of each mast affords a splendid support to the lateral movement of the deck loads, which, in combination with the Pacific method of securing the load, when properly stowed on deck by chains secured to the sheerstrake and passed over the load from side to side, with turnbuckles to take up the slack, results in building a deck load which has all the stability and homogeneity of an erection itself. It is computed that the Atlantic, with a moderate deck load, will carry 5,000,000 board feet of lumber, or alternatively, a total bulk dead weight of 9,000 tons.

Power Under Provincial Charter

The Dominion Government will ask leave to appeal to the Privy Council of Great Britain from the judgment of the Supreme Court of Canada, that a company operating under provincial charter is not confined to its own province. The outcome will be awaited with much interest by pulp and paper companies of Canada. The financial stringency is having a marked effect upon the incorporation of federally chartered companies in the Dominion. During the past fiscal year the number of companies chartered was 758, with a total capitalization of $425,307,569, as compared with 939 new companies with an aggregate capital of $680,762,199 for the previous fiscal year.

Wayagamack Had a Good Year

With the end of June the fiscal year of the Wayagamack Pulp and Paper Company, of Three Rivers, Que., was closed. The period just ended has been a very good one in the demand for kraft paper, although it has not been a particularly easy thing to market the output. Bond interest and all charges have, however, been met, and the report will show, after all deductions, a fair percentage earned on the common stock of the company, which has $3,500,000 bonds and $500,000 stock outstanding.

Willow Flooring

In England certain kinds of floors are made of willow in preference to other woods. It finds its place in warehouses, stores, factories, and in other places where trucks are trundled over the floors and wear is great. It is tough, though not very hard, and it does not splinter or split. All parts of the surface wear evenly, and it acts like a cushion under the jolting of wheels. That is the chief quality in its favor. It causes less noise than floors of harder wood. Its behavior is much like that of black gum when used for flooring. Willow is cheap, and at present its most important use in this country is as box material.

WASTE ELIMINATION
IN LOGGING OPERATIONS
My reports show where the waste is, and how it may be eliminated.
D. E. LAUDERBURN, Forest Engineer
1 Madison Ave : NEW YORK, N.Y.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS. OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

Timber Cruises
Forest Surveys
Water Powers, Storage, Logging and Lumbering Contracts, Reports for Financial Houses and Lumber Concerns.
R. O. SWEEZEY
164 St. James Street, MONTREAL

Cleans a building of Rats and Mice in short time, keeps it cleaned, for it is always ready for use. Made of galvanized iron, can't get out of order, lasts for years. Large number can be caught daily. Go to Catcher mornings, remove device inside, which only takes few seconds, take out dead rats and mice, replace device, it is ready for another catch. Small piece cheese is used, doing away with poisons. Catcher is 18 inches high, 10 inches diameter. When rats pass device they die, no marks left on them. Catcher is always clean. One of these Catchers set in a livery stable in Scranton, Pa., caught over 100 rats in a month. One sent prepaid to any place in Canada or United States upon receipt of $3. Catcher, 8 in. high, for mice only, prepaid $1. On account of shipping charges being prepaid, remittance is requested with order.
H. D. SWARTS,
Inventor and Manufacturer, Scranton, Pa.

Ontario Lumber Company Limited
In Liquidation

The undersigned invites tenders for all or any of the following Timber Limits in the District of Parry Sound, Province of Ontario:

Township	Berths	Area (sq. miles)	Estimated quantity timber
McConkey	1, 2, & 4	56¼	About 117,000,000 feet, including 70 million feet of Hemlock and about 15 million feet Birch
McConkey	Part 3	4¼	
Hardy	3	20¾	About 33 million feet, including 15 million of Hemlock and about 9 million feet of Birch
			Less 10 million feet in above 2 townships
Mills	1	23½	About 54 million feet, including about 31 million feet Hemlock and about 11 million feet Birch
Pringle	1 & 2	43¾	About 38 million feet, including about 16 million feet Hemlock and about 12 million feet Birch
Lount	3	18¼	About 28 million feet, including about 13 million feet Birch
Machar	Part 2, 4	15	About 5 million feet—Hemlock and Birch
Gurd	1	18¼	About 5 million feet—Hemlock and Birch
Henvey, or Broken Front	6	73	About 7 million feet—mostly white and red pine

The above areas, timbered, are covered by Government Licenses renewable from year to year. Estimates are taken from the Company's records.

The undersigned also offers for Sale, on behalf of the Creditors of the Company, the French River Mill property and equipment, the property of the above Company.

The lowest or any tender not necessarily accepted.

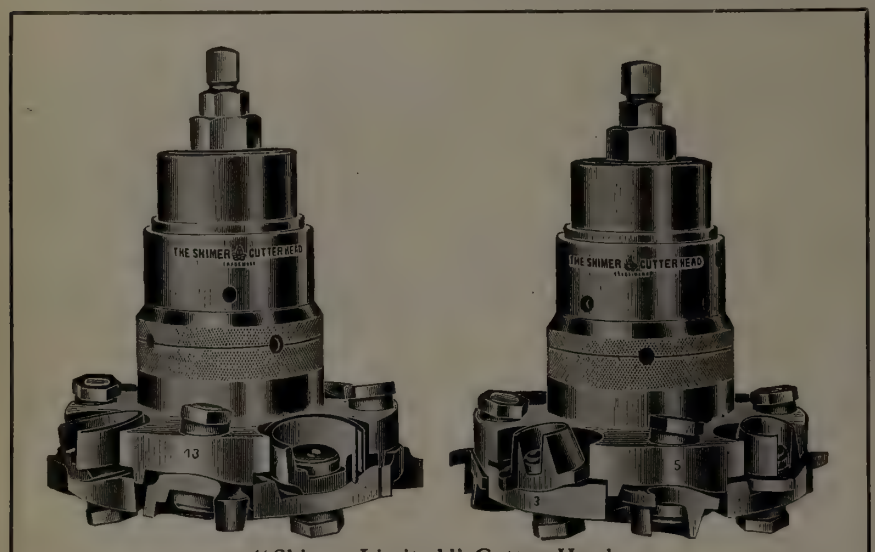
BRYAN PONTIFEX, C.A.,
Liquidator
2 Leader Lane, TORONTO

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

Shimer Limited Cutter Heads

The accompanying illustrations represent the "Shimer Limited" cutter heads which are widely known among lumbermen as one of the most important parts of the equipment of any mill using a matcher. It is now some forty ywears since the Shimer cutter head was introduced, and marked the beginning of a new era in matching lumber. Previous to that time the product of no two mills in the country would match into the same floor. It was only with the introduction of these time and labor saving tools that the several lumbermen's associations adopted certain proportions as the standard tongue and groove for certain thicknesses of flooring. Soon builders in making up their orders began to specify that the flooring to be furnished was to be matched with Shimer cutter heads. Today standard sizes have become uniform the country over and flooring strips



"Shimer Limited" Cutter Heads

shipped from the State of Maine will fit the flooring strips coming from the State of Texas, and may be worked into the same floor.

In appearance the "Shimer Limited" series of cutter heads resemble the older patterns of these famous tools but differ therefrom in the method of attaching to the spindle; in the construction of the bit seats; of the bit designed for faster cutting; in the greater strength of the holding bolts, and in the self-centering device which clings to the spindle when drawn up, securing it firmly thereto.

The "Shimer Limited" cutter heads are made from solid steel forgings of 60,000 lbs. tensile strength, which are shaped under a powerful steam hammer until the grain is further solidified and refined, making a tool which has no equal for strength. They are carefully balanced and the Bits are jointed to insure all of them doing their share of the cutting.

These tools must be seen at work to be appreciated. Like all Shimer products they are sent on trial, returnable if not satisfactory. Send for a set and give them a try out on your fastest machine. Address Samuel J. Shimer & Sons, Milton, Pennsylvania.

Handling Lumber by Gravity

One of the problems that faces the lumber manufactured of today, is the handling of the manufactured stock from the mill as expeditiously and economically as possible. Many lumber mills in Canada add considerably to the cost of the finished product by antiquated methods of handling and rehandling before the lumber is finally on the cars or the vessel.

A firm which specializes in the handling of the finished product, one which it would pay lumbermen to consult, is the Canadian Mathews Gravity Carriers Company, of Toronto. Just imagine a double row of steel rollers assembled in a steel frame having a total width of 17 inches, extending from a freight car on the siding to your piling grounds or sheds, and the reader will have a correct mental pictuer of one of the methods by which this company's machines handle stock. The lumber conveyors are made of all steel ball-bearing rollers, eight-foot sections, easily coupled together and assembled to form a line of any required length, over which lumber, flooring, and dimension stuff will travel on a four per cent grade. Adjustable jacks are supplied to support the conveyor line and secure proper grade. The company also make a ball-bearing wheel type of conveyor especially designed for conveying shingles. Manufacturers of boxes, staves, headings, shooks, etc., will find the Mathews Gravity Conveyor a very profitable device for handling their finished product.

An Important Crane Contract

George Anderson & Company, Limited, of Carnoustie, Scotland, the parent firm of George Anderson & Company of Canada, Limited, Montreal, have just been successful in securing two very large contracts. The first, for eleven wharf cranes for the Port Commissioners of Calcutta, India, was secured in the face of strong competition with all the leading crane makers of Great Britain and Europe. The firm, who have supplied cranes of all types all over the world, send only the ironwork to foreign countries, the lumber being supplied at the site, thus reducing the freight charges to a minimum. The second contract, which was also secured in the face of very strenuous competition, is for eight large gas engines and suction gas plants for the Hirosima irrigation scheme in Japan. These engines are designed for continuous running on a very small quantity of fuel which, in this case, is charcoal. George Anderson & Company of Canada, Limited, are making a specialty of this class of machinery, for the lumber trade.

An Important Logging Device

The Barienger Braking Device as manufactured by Ryther & Pringle Company, of Carthage, N.Y., has proven itself of great benefit to lumbermen operating in rough and hilly country. This device does away with the old-fashioned snub lines and all necessity for using hay or sand on steep hills when hauling in the winter time. By the use of this device it is possible to build roads much steeper and in consequence much shorter and straighter than heretofore and the use of this brake insures against the danger of sluicing a load on a hill with disastrous and oftentimes fatal results to both team and driver. These brakes were used last winter in the Dominion by the J. H. MacDonald Lumber Company, Blind River, Ontario, Gillies Bros., Braeside, Ontario, and John Fenderson & Company, Inc., Sayabec, P.Q.

The Simplex Roller Die Swage

A new and useful tool known as the Simplex Roller Die Swage has been designed for use in small and medium, as well as large saw, planing, stave, box board and other wood working plants and factories, for the swaging of all saws used for cutting with the grain of wood such as: band saws, 3 to 20-in. wide, circular saws, 12-in. to 76-in. diameter, gang saws, all sizes, cylinder saws, 13 to 36-in. diameter, all varying in gauge from 5 to 21 (English standard gauge) which are intended to cut with the grain of the wood, of any space of teeth from 1½ ins. to 6 ins. from point to point.

The Peter Gerlach Company, Cleveland, Ohio, manufacturers of the simplex roller die swage state that it is a well known fact that

(Continued on page 143)

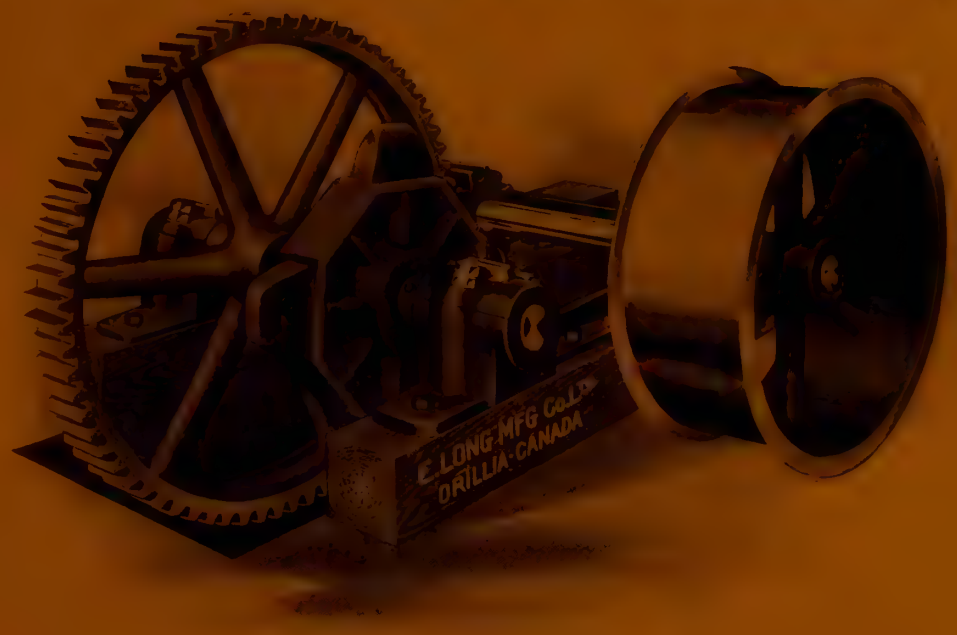
The Simplex Roller Die Swage

The Mark *of Quality*

HAUL-UP MACHINERY

There is, in our line, a Haul-Up device, suitable for any mill; whatever the lay-out or system; and for any timber, whatever the length or size.

We have a Catalog describing the various styles of these machines, and if you will write us, we will tell you where you can see the one in which you are interested, making good in your territory.



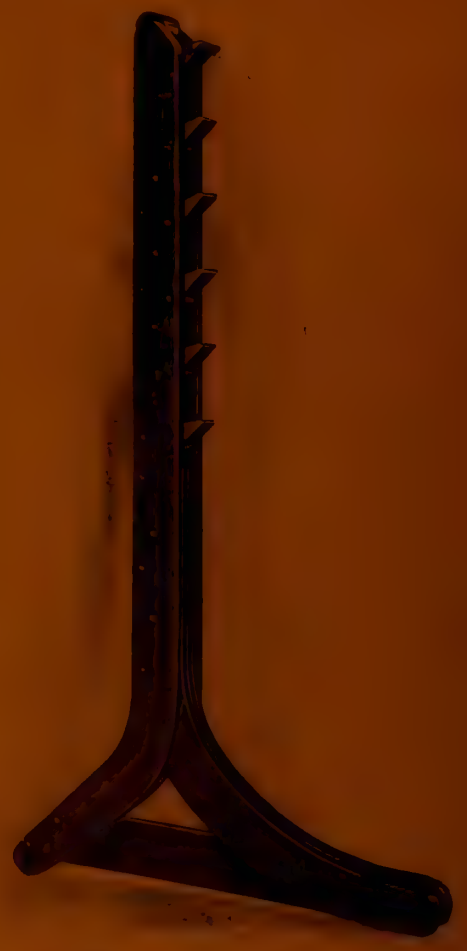
Single geared Log Jack

The E. Long Manufacturing Co., Limited, Orillia, Canada

Agents:
Robt. Hamilton & Co., Vancouver
Gorman, Clancey & Grindley, Limited, Calgary and Edmonton
Stuart Machinery Co., Ltd., Winnipeg
Williams & Wilson Ltd., Montreal

Pacific Coast Log Jack

The Mark THE E. LONG MANUFACTURING CO. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*



Solid, Forged Steel Nigger Bar

Deck Machinery

We have a complete line of machines—Kickers, Loaders and Niggers—for Log Deck service. These are built in a great variety of sizes; all simple in design and consistently heavy. Their installation is a guarantee against future trouble in that part of the mill, where wear and tear is hardest.

You will find what you require in our catalog 101, "Log Deck Equipment." This catalog gives the principal dimensions of the different machines, and will greatly assist you in solving your log deck problem.

Double Spring Cushion Nigger Floor Plate

The E. Long Manufacturing Co.
Limited
ORILLIA - CANADA

The Mark THE E. LONG MANUFACTURING CO. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

Sawing Machinery

There are several sizes of **iron saw frames,** furnished with or without top saw, one of which will interest you.

They are all of unit construction; the base being made in a single casting; for which reason they "stand up" and maintain their alignment.

Long's "Quality" Carriages were the first saw mill machines built by the Company. They were the machines that earned the reputation for dependability in service, that has placed "Long" Machinery in it's present enviable position, at the head in it's class. There is a "Long" carriage, in a weight, and at a price, to suit every purchaser. Catalog 100 describes each one in detail.

No. 3 Iron Saw Frame

The E. Long Manufacturing Co., Limited, Orillia, Canada

No. 40 Heavy Duty Carriage

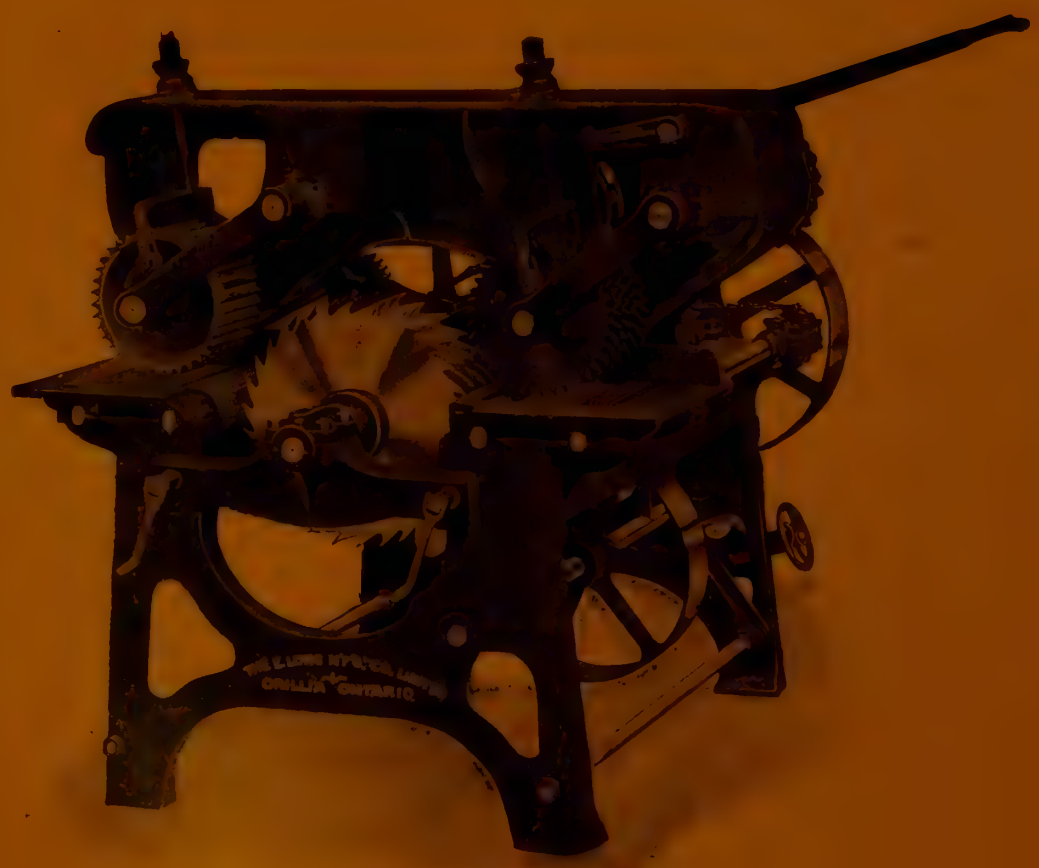
The Mark *of Quality*

By-Products

Our catalog on Lath, Picket and Slat machinery, contains the most complete line of these machines ever offered to the wood manufacturer.

The cuts give a fair idea of the construction of two of our Bolters, but you owe it to yourself to get the catalog. Ask for number 102.

No. 2 Lath Bolter



No. 3 Lath Bolter

Consult us freely on any of your saw mill problems. Our Engineering Department is always at your service.

The E. Long Mfg. Co.

Limited

Orillia, Canada

AGENCIES:

Robert Hamilton & Co., Vancouver.

Gorman, Clancey & Grindley, Calgary and Edmonton.

The Stuart Machinery Co., Ltd., Winnipeg.

Williams & Wilson, Limited, Montreal.

saw teeth which work to the best advantage upon all kinds of woods, grown in America, whether, frozen, green or dry, should have an angle of 45 degrees at their cutting point. The Simplex swage, swages such teeth, or in fact teeth of any angle from 35 to 50 degrees if required; although the 45 degree angle is considered the best. This universal feature should commend the simplex swage to all mill men, whether operating in a large or a small way.

These swages are mechanically perfect, strong and true, and each part is made of the finest quality of steel. All wearing parts such as roller dies, anvils, screws, nuts, washers and their seats are hardened, and tempered, and every part is standardized or made interchangeable. The tool is very easily adjusted by any filer of ordinary intelligence, yet the swage is safeguarded against the smashing of roller dies and anvil by limiting the throw of the swaging lever.

This swage has been thoroughly tested for a year on all saws for which it is being recommended, by some of the most experienced filers, who report that it has fulfilled every requirement.

Those who are interested in swages will be serving their own interests by sending to the Peter Gerlach Company, Cleveland, Ohio, for a copy of the new Simplex list.

Shurly-Dietrich Company Ready for the Trade

The Shurly-Dietrich Company, Limited, Galt, Ont., manufacturers of the widely known Maple Leaf Saws have rebuilt their factory on an improved plan and have equipped it with the latest and most up-to-date machinery. They are now in a position to meet all demands for their products.

In addition to the Vancouver branch, they have established a branch at Hull, Que., on Montcalm street, adjoining the factory of H. Walters, Sons & Company. At this branch they will do repairing, and carry a stock of circular, band and cross-cut saws, also inserted teeth, bits, shanks, etc., for the convenience of their eastern customers.

Mr. H. E. James, Ottawa, will have charge of the sales department, and Mr. Frazer, late manager of the Standard Saw Works, Ottawa, will have charge of the repairing department of this branch.

Ryther & Pringle Company's Products Popular

Ryther and Pringle Company, Carthage, N.Y., during the present season have furnished a number of their slashers, swing saws and other devices incident to the reduction of long logs to short uniform lengths for pulp wood, to leading Canadian concerns. Among the plants equipped with this class of machinery by Ryther & Pringle Company have been the North Shore Power, Railway and Navigation Company of Clarke City, P.Q., The Donnacona Paper Company, Donnocona, P.Q., The Baie St. Paul Lumber Company, Baie St. Paul, P.Q., and the Abitibi Power & Paper Company, of Iroquois Falls, Ontario. Ryther & Pringle Company have made an exclusive specialty of this class of machinery for a number of years and their equipment has found a place in the great majority of the leading pulp mills in the Dominion as well as the United States.

A Unique Trade Booklet

"How The Chief Engineer Was Convinced" is the title of a booklet just published by the B. F. Sturtevant Company of Canada, Limited, Galt, Ontario, describing a visit of a prominent engineer to their works. It deals particularly with the manufacture of the company's turbines and tells and illustrates how each part of the machine is made, tested and finished. Copies will be sent on request.

A Valuable Food for Camp Horses

One of the most important assets of the lumber trade in camp operations, is the quality of the horses which play such an important part in the work of every camp. It is necessary to secure the best stock in heavy draft horses and after that it is necessary to keep them in good working condition. Heretofore the trade has suffered heavily by the loss of these animals, many dying in the isolated places where no veterinary was available. This was due largely to colic, indigestion and other similar maladies, the chief causes of which were found to be over work and over feeding. Of late, however, by the substitution of a portion of molasses meal for a portion of the usual ration the mortality has been reduced considerably.

One of the most successful meals of this nature on the market is the Caldwell Molasses Meal, manufactured by the Caldwell Feed Company, Limited, of Dundas, Ont. Caldwell's Molasses Meal has now become the standard supplementary Feeding Meal of the Dominion. It is not only highly nutritious itself, but it increases the value of the rest of the food at least 25 per cent. It is sold under Government guarantee to contain at least 80 per cent pure cane molasses. It is dry to the touch, of a pleasant odor, easily digested and most palatable.

It is manufactured in a large and up-to-date mill giving a maximum output of over 80 tons of molasses meal every twenty-four hours, the whole plant forming what is perhaps the largest and most modernly equipped mill for the manufacture of feeding meals to be found in the Dominion.

Caldwell's Molasses Meal is now used by the leading firms of the Dominion, who have found it most satisfactory.

Free Consultation for Lumber Horse Owners

The National Stock Food Company, Limited, of Montreal, who are catering to the lumber camp's veterinary needs in stock food and drugs, are offering to the trade free consultation by letter with their experienced veterinaries in charge of Dr. A. I. Telmoose, of Ottawa, one of the leading veterinary surgeons of that locality. Special forms are sent on request which, when properly filled out and mailed by the owner of the horses, will give by return mail a correct diagnosis of the ailments from which their animals are suffering. This should prove particularly useful to lumbermen in isolated places. The company was incorporated in April of this year with a capital of $100,000 and its directors are A. A. Mondou, M.P., president; J. A. Barrett, M.P., vice-president, and Dr. A. I. Telmosse, of Ottawa, manager.

Acadian Pride Homespun Pants

In the management of woods operations there is nothing of more importance than the comfort and good natured co-operation of the lumber jacks. One of the most certain ways of securing co-operation of this nature, is by handling, in the camp store, only the most suitable of all kinds of materials, which are sold to the men. Employees who feel that they are getting the best possible value for their hard-earned money are certain to give in return for their wages the best service they can.

In these days when labor and costs are so high, such a matter is of the utmost importance. None of the stocks carried in a camp store are of more importance than clothing. Upon it depends, to a very great extent the comfort and the working ability of the men.

Messrs. Clayton & Sons, wholesale clothiers, Halifax, N.S., have long ago realized the truth of this statement, and have done a great deal towards simplifying the clothing problem in the lumber camps, by the production of the "Acadian Pride Homespun Pants." A fuil page advertisement of their goods will be found elsewhere in this issue, and by reading this advertisement, logging operators will see at a glance, many of the attractive features of these goods. Acadian Pride Homespun is particularly adapted for the hard usage which logging employees give to all their clothes. The seams are sewn with four-cord thread, strong bar tacking is used to strengthen all the pockets. The material is thoroughly mill shrunk before being made up.

There are many other important advantages, which will appeal to all who work in the camps, and we would advise our readers, who are interested in these goods to get into touch with Messrs. Clayton & Sons without delay.

Running on Full Time

Editor Canada Lumberman: New York, Aug. 3.

Our saw shop has been running practically on full time right along, to supply our customers both in the United States and Canada with genuine Hoe chisel-tooth saws, bits and shanks, and while the present conditions in this country and abroad make the immediate outlook somewhat uncertain, we have every confidence that the lumber business is likely to be more active in the near future in accord with the opinion and expectations of many lumber manufacturers.—R. Hoe & Company.

Have Had a Good Year

Editor Canada Lumberman: Orillia, Ont., August 3.

We are glad to advise you that, taking into consideration the conditions of business in general throughout the country, we are well satisfied with the volume of business done during the past year.

Owing to the unsettled conditions throughout Europe at the present time, we think it would be useless to give any forecast of the prospects for business in our particular line.—The E. Long Mfg. Co.

Orders Ahead for September

Editor Canada Lumberman: Duluth, Minn., Aug. 3.

We find conditions especially good at the time of writing in our logging machinery department. In this department, we have orders ahead to keep us running continuously until almost the end of September, but, of course, we are perfectly willing to put on a double shift if necessary.—Clyde Iron Works.

Editor Canada Lumberman: Saginaw, Mich., Aug. 3.

Our business during the past year, has been unusually satisfactory, and the volume has exceeded the business done previously in two years put together.—William B. Mershon & Company.

Review of Current Trade Conditions

Ontario

Lumber trade conditions in Ontario are affected so greatly to-day by the sudden commencement of war in Europe that it would be difficult to say just what the actual situation is. Midsummer dullness has been in effect for some weeks already, and it is a question whether the quietness which now prevails, is so much the result of the war, as many lumbermen seem to believe. The fall trade will probably remove this doubt in the course of time. Unquestionably there is to-day a great quietness in the trade. Travellers report that they are met everywhere with the same remark, to the effect that everything looks so doubtful that no orders can be given. The actual volume of trade to-day is probably less than it has been for many years. Building operations have been affected by the scarcity of money. New buildings are not being projected to any extent, and many of those in the course of construction have been temporarily interrupted for want of funds. The demand according to retailers' reports, is largely for material for repairs, etc., and this only makes sufficient trade to keep a small amount of stock in movement. Retailers are buying very little, waiting to see how matters will develop. Manufacturers are in the dark regarding the outlook for next year, and are considering whether they will curtail their operations. High prices of provisions may more than off-set the reduced cost of labor and render it unwise, in some cases, to put many men into the bush next winter. Some manufacturers have almost decided already to reduce their winter's operations greatly, but others are still in doubt, or because of peculiar local conditions, are committed in advance to fairly heavy production.

The export trade at Ottawa has been brought to a standstill, by the war situation. Trade in general has slumped since the opening of the war. Building operations have come to a stop, as they are crippled by the scarcity of money. Ottawa operators are considering the advisability of reducing their woods operations next winter. J. R. Booth who intended to send 3,500 or 4,000 men into the bush, will probably only send about 1,000, unless the war suddenly comes to an end. Other large manufacturers will only operate as many camps as are absolutely necessary. Food stuffs and horse feed have already advanced in price, and further advances are expected.

Eastern Canada

Reports from St. John, N.B., indicate that the local lumber trade during the past month has been quite active, and that the activity has been fairly well maintained. The improvement developed before the war, and it is difficult to say whether it will continue or not. The export trade will depend very largely upon whether the trade lanes upon the ocean are kept open. Local prices continue firm at St. John. Merchantable spruce boards selling at $16.00 at the mills. Refuse stocks are light and the prices are about $11.00 at the mills. Low grade boards are scarce. Stocks of English deals have been reduced considerably during the past fortnight. If the war continues, English deals are likely to be stored on the wharves at St. John. The English demand was showing improvement up to the opening of the war, and if stocks could be shipped now, they would probably bring good prices. Manufacturers are hoping to be able to make shipments soon. No improvement is yet reported in the American market. The demand for random cargoes is poor. Stocks averaging about 15 feet are in fair demand and are more profitable, selling at about $16 per M., f.o.b. St. John, for 2-inch stock with a small portion of 4-inch. The demand for lath continues good at a rate of $3 per M. on the wharves, or at the mills. Unsold stocks are scarce. All the logs in the St. John River are now in the booms, and about half of them are rafted. The total amount passing through the booms this year, will probably be a little over 50,000 feet. Lumbermen are waiting until the war situation clears before arranging their plans for logging next winter.

The lumber trade at Montreal is suffering similarly to that of other important Canadian points, on account of the war situation. No great decrease has occurred, but a feeling of uncertainty has prevented local dealers from buying to the usual extent, and unless the situation improves, trade is expected to decline considerably. A good deal of difference of opinion is expressed as to the ultimate effect of the war upon the lumber trade. It is thought at present that building operations will not be greatly disturbed. The export market to Great Britain has felt the effect of the war considerably. Stocks in Great Britain are large, but will not last very long, as it is difficult to secure fresh supplies from the Baltic. This may have a good effect upon the demand for Canadian pine.

Firmer prices are reported for spruce at Boston. Some of the larger dealers are holding out for $23.50 base. Some business is still taking place at $23, however. Improvement is also reported in random. Quotations being as follows: 2/3, $20.50 to $21; 2/4, $21.50 to $22; 2/5, 2/6, 2/7, $20 to $21; 2/8, $22 to $22.50; 2/10, $23.50 to $24; 2/12, $24 to $24.50. The market for spruce covering boards is quiet. There is a fairly steady demand for lath at Boston, but prices are a little easier. Most of the transactions being at about $4.05 for 1⅝ in. Some mill men, however, are refusing bids of less than $4.10. On the other hand there are a few sales at $4.00. The inquiry for 1½ in. lath is moderate and quotations are from $3.70 to $3.90. Shingles are firmer and the demand is improving. The best makes of white cedar extras are being held at $3.60, Clears are offered at $2.85 to $3.10 and second clears at $2.60 to $2.70. B. C. extras are quoted at $3.55 to $3.75 and Washington makes at $3.45 to $3.70.

United States

The war has had an unsettling influence upon United States trade conditions in general. In the lumber business, however, a decided tendency toward improvement is noticeable. Manufacturers are expecting a much heavier trade during the fall. Reports from many parts of the country indicate a greater inquiry for stocks. Southern pine mills continue to hold their stocks at fairly firm prices. The Pacific Coast mills are holding firm to the recent advances of $1.00 per thousand.

The hardwood markets are more hopeful than they were recently and manufacturers are producing extensively in anticipation of good business. Northern hardwood is particularly firm. Northern pine and hemlock are a little firmer, but there is not much activity in buying at present as farmers are busy in the field. A better demand for these woods is expected a little later on. The demand for Northern pine at Buffalo is still small so far as the better grades are concerned. Prices are well maintained as a whole, but are low. The box factory trade is quiet but low grade stocks are scarce and prices are firm. Better business is reported in Northern pine from North Tonawanda. Dealers report a general improvement in the demand. No surplus of the lower grades has developed. A steady sale is reported for hemlock at Buffalo, and prices are on a fairly firm basis. Stocks offered, however, are plentiful. The hemlock market at North Tonawanda is not active but dealers are expecting improvements in the early fall.

Great Britain

The war situation in Great Britain has overshadowed all other considerations and naturally has had an effect upon the lumber trade. Up to the latest reports, however, a fairly good business has been in progress. London spot prices, except for deals, are quite good, and for prompt parcels on c.i.f. or "ex-ship" terms there are many inquiries, but very few sellers. The rise in freight of from three to four shillings per standard from the Baltic has assisted spot prices, and has tended to depress f.o.b. figures. London firms report having made important contracts for White Sea goods the figures varying from 10 to 20 shillings per standard lower than those which were at first asked by the shipper. The inference is that shippers have been greatly affected by the general nervousness, which has developed out of the war.

The slight improvement that was noticeable at Liverpool and Manchester recently has been suddenly checked by the war situation. Spruce continues to find a quiet market and is expected to do so for some time yet. Spruce deals at Glasgow seem to be hanging fire to some extent, the demand having been very disappointing for a long time. Riga stock is taking the place of spruce to a large extent. Arrivals from Montreal have made up most of the recent Glasgow imports and have consisted chiefly of birch planks, and third pine deals.

Plenty of Men for the Camps

Owing to the scarcity of work in the cities there is a very large supply of men available for bush work this year, and the labor bureaus have received an immense number of applications. Many gangs have already been sent to the various camps in Ontario and Quebec. One feature is the unusually large number of French Canadians who are seeking work in the bush. There is every reason to believe that the wages to be paid will be in most cases on a lower scale. The Quebec Provincial Employment Bureau, Montreal, commenced last year to send men to the lumber camps, and this season has received increased applications from men anxious to go to the camps. Mr. F. Payette, the manager, has visited several of the larger camps in the province.

View of Mills in Sarnia.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Trade Active—War Effect Doubtful

St. John, N.B., August 4th; (Special to the Canada Lumberman): Locally, the lumber trade has been good, and sharp trade has taken place during the past month, and at present writing there has not been any great cessation, but what the arising war clouds may do remains to be seen. Of course, if anything extraordinary happens it will be the means of making people move very cautionsly, but, should the trade lanes be kept open and exchange of money be facilitated, probably business with us will be as good, if not better than of late, in as far as the foreign business is concerned.

Prices for local lumber remain firm. Merchantable spruce boards are quoted at $16 at the mills and clear spruce boards at $25 per M. at mills, but a very limited quantity can be had as the logs only produce a very small percentage. Stocks of refuse at the local mills are not heavy and are pretty well purchased, the price being about $11 per M. at mills. Very few low grade boards are on hand as they are used about as fast as made. The same also applies to 2 x 3, 2 x 4, 3 x 4, the only stock beingin 3 x 5 and up deals.

Stocks of English deals at the mills are not heavy as a good many steamers have been loaded during the past two weeks by Messrs. Moore, Mackay and McKean, but it is expected that should the war continue all deals manufactured from the present onwards will be stored on the wharves here unless certain arrangements can be made with the governments for protection in transporting. No prices can be made on deals from this market at present. In fact, all the cuts are sold and no deals are coming forward unsold. Business in England was fair up to time of opening of war, and some shippers feel that if they could ship over the stock, they could probably get good prices. Probably the next two weeks will decide what can be done towards getting the lumber across and also what demand there will be for lumber. A steamer carrying about 3,000,000 feet just left port today for Glasgow, with an order, and whether she will get through safely remains to be seen.

In the American market the improvement looked for has not taken place, although some buyers differ in their opinion, according to the location of their yards, or the district in which they are doing business. For long random cargoes from St. John the prices which can be had are unprofitable, as the logs from which the long average stocks are sawn are costing about as much as the stock brings after being manufactured, but taking stock which averages about 15 feet or thereabouts the prices are much better in comparison and are bringing the shipper about $16 per M. f.o.b. St. John for random two inch with a small portion of 4 inch, largely 4 x 6.

Laths remain firm and are well shipped up, a good portion of the laths shipped from here this year have been sent to Philadelphia by steamer and have left the shipper a little better than $3 per M. on wharves, or at mill. Many inquiries are coming in for laths, but very few are unsold at present.

Pine of shipper quality is being purchased at about $25 per M. for the large boards, 8 inch and up wide, 10 feet contents and up and $17.50 for the smaller size boards under 10 feet contents. These do not contain any fourth quality or refuse boards. Clear pine is scarce and what there is cannot be purchased for less than about $45 per M. for small boards and $60 per M. for the larger boards.

Hemlock plank and deals are selling at from $12 to $15 per M. according to quality with boards planed one side at about $16 per M. Stocks are light and spruce is being largely used for boarding in purposes.

Shingles remain quiet and no improvement is looked for. Prices remain unchanged.

Freights for England are now out of the question, as no vessels can be had until the government is supplied with transports, after which, if satisfactory arrangements can be made in reference to risk, etc., no doubt vessels will be offering. Until then probably no shipments will be made.

Coastwise freights are very low and many vessels have tied up rather than accept the low rates offered to New York, being about $2.75 per M., at which price the owners claim they cannot pay their bills.

What effect the war will have upon the American market it is impossible to forecast. While some think that it will make an improvement, others do not.

The St. John River Log Driving Company now have all the logs on the booms and the river is clear from Grand Falls to the booms. Twenty-eight million feet of logs have been rafted to August 1st, this being a little over half the total quantity. It is expected that work at the booms will be finished early in September. The new system of rafting is proving very successful both in saving in rafting expenses, lessening the destruction of the log in boring and pinning as in the old way, and being a benefit in handling at the St. John end. A still further improvement can be made for another season in making a slight change in the layout of sorting works, which will facilitate faster work.

No arrangements for cutting logs for 1915 have been yet made and absolutely nothing will be done until after the lumbermen can see their way clear about the outcome of the war and its affect on the markets.

Montreal Trade Holding Up Fairly Well

Montreal, August 12th (Special to the Canada Lumberman): Since the last report, conditions have undergone a lightning change. No one imagined that within such a short period the long dreaded European war would be a fact and that general markets would be upset in such a marked degree. So far lumber business has not declined to any great extent—although naturally orders are coming in slowly—but there is a feeling of uncertainty which prevents local dealers especially from buying on a normal scale. They are nervous as to future developments, and therefore are acting in a very cautious manner. This is a mere matter of precaution. All the wholesalers have not been affected as yet, and here and there firms report a fairly satisfactory amount of trade, having regard to the general conditions which have prevailed this season. As a matter of fact, while it is generally agreed that the market will be adversely influenced, there is a great divergence of opinion as to how far the lumber industry will feel the effects of the European struggle.

Building of houses and flats continues to be a feature, but some of the larger structures are being held up in consequence of the outlook. Many prominent contractors, however, express the belief that, on the whole, the building business will not be materially disturbed.

Prices of spruce are holding up, while the better grades of pine continue weak in value and slow of sale.

Exports to Great Britain have naturally suffered from the war conditions. A fair amount of lumber has just been sent. One or two firms have stopped shipments, and if there is no improvement in the situation, it is very probable there will be a further diminution in the exports. Stocks in Great Britain are large, but, these are certain to be depleted owing to the impossibility of obtaining supplies from the Baltic, and a better demand for Canadian pine may arise, although there is the possible difficulty of obtaining freight room to be reckoned with. The insurance rates on lumber have advanced 20 per cent.

The pulp and paper markets are strongly influenced by the war. All exports from Europe to Canada and the United States are stopped, and Canadian manufacturers will not be able to supply the demand, particularly of sulphite. Under these circumstances prices have taken a sharp upward turn.

Ground wood quotations have advanced in sympathy, and there is certain to be a shortage of this pulp.

The consumption of news print has greatly increased—one Canadian daily is buying 50 per cent more than the normal quantity, and prices have stiffened. The Laurentide Company, Grand Mere, is running to its full capacity, and has declined to fill export orders from South Africa, Australia, and New Zealand until there is more certainty as to the freight position.

Ottawa Trade Feels Effects of War Situation

Ottawa, August 7th (Special to the Canada Lumberman): The all absorbing topic of interest with the lumberman just now is what will be the effect of the war in Europe, if it is prolonged for any length of time. Already the export trade has been brought to a standstill owing to the danger of British vessels being attacked by German vessels on the Atlantic. Yesterday Watson and Todd, or rather their representatives here, informed the Canada Lumberman that shipping companies had given notice that they would take lumber aboard at Montreal, but would not promise when it would be delivered. Insurance rates have jumped from one and one and half per cent to three and five per cent. The outlook at present is not very encouraging and indications are that business will be crippled for sometime, unless

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the war ends quickly, or the British win some decisive victory on the sea that will enable merchant ships to ply between Canada and England without danger.

The export business is not the only branch of the trade that will be affected by the war. Trade for several months past has not been brisk and in the last few days it has taken a bad slump. People who contemplated building have postponed their plans owing to the state of the money market with the result that building does not show signs of going ahead.

A few weeks ago the wholesale lumbermen figured on sending more men into the bush this season than they did last year, but with the prospect of foodstuffs rising to an expensive height they have changed their minds. J. R. Booth intended to send from 3,500 to 4,000 men, but unless the war comes to a close quickly he will not have more than 1,000 in the camps. W. C. Edwards Company, Shepard and Morse and all the large firms in the Ottawa Valley will not operate any more camps than are absolutely necessary. Foodstuffs and horse feed have already risen to some extent this week and provision merchants predict more increases are inevitable shortly.

There have been no alterations in prices lately nor are there likely to be, as the demand will no doubt fall off.

A factor that will help to make the total cut in the Ottawa Valley considerably less this year than it was last is the breakdown that occurred at the sawmills of Shepard and Morse last Tuesday, when a connecting rod on the driving engine broke and caused the engine to be completely wrecked. The head of the cylinder blew out and came near doing more serious damage than blowing out the end of the engine shed. This accident will cause the mill to be closed down for two weeks and during that time 125 men will be idle. The firm will install an electric motor until a new steam engine is installed. Add to the two weeks idleness of the Shepard and Morse mill the tie up for five week's of J. R. Booth's plant through the breaking of a flume wall at the latter part of June and the inconvenience caused to several mills throughout this district owing to the lack of water in the driveways and it will be readily understood that this year's cut will be a good many million feet less than last year.

The fire which broke out in Gilmour and Hughson's yards at Hull, Que., last week destroyed about 7,000,000 feet of various grades of pine, mostly middle grades, valued at approximately $200,000. Of the 7,000,000 feet burned about 4,000,000 was owned by Hughson and Company, of Albany, N.Y., and the balance by Gilmour and Hughson. Thomas Mackarell lost about 25,000 feet. The total loss is covered by insurance. The cause of the fire is not known, but it is believed that it was due to someone throwing a lighted match or cigarette on some inflammable material in the yard as he pasesd by.

Canada's Resources Shown at C. N. E.

The display of Canada's natural resources in the Government Building at the Canadian National Exhibition, Toronto, is the most complete ever got together. The Dominion Government is sending a complete exhibit of the fish that swim in the Atlantic, the Pacific and the streams that flow between. Ontario is showing her grains, her fruits and her minerals; British Columbia is sending her timber, her fruit and her grains, the Prairie Provinces are showing their grains and the Maritime Provinces their minerals. If you are a Canadian the display will make you proud. If you are a visitor it will interest and amaze you.

Argentine Lumber Imports

The total value of Argentina's importation of the classes of lumber included under the heading of white pine, spruce pine and tea pine, as given in the Argentine Government trade returns, is shown herewith:—

	1909	1911	1912	1913
	$	$	$	$
White pine	2,546,049	2,710,800	2,207,272	1,406,879
Tea pine	11,205,554	9,158,953	8,460,852	9,182,464
Spruce pine	2,887,473	3,387,659	3,823,429	2,964,094
Total	16,639,076	15,256,412	14,491,553	13,499,437

The total exports of lumber from Canada for the year 1912 (excluding laths, palings, pickets, shingles, shooks, staves and headings), amounted to $28,510,812. Argentina's total consumption of white pine, tea pine and spruce lumber therefore is equal to about half of Canada's total exports of the same classes of lumber.

The values of Canadian lumber purchased by Argentina for the period, 1908 to 1912, were as follows:—

1908	$1,577,216
1909	1,581,712
1910	2,321,290
1911	2,646,058
1912	1,724,608

Apart from the United States and the United Kingdom, Argentina would seem to be the most important foreign buyer of Canadian lumber, as the purchases of no other country reach the two million dollar mark. The amount of lumber sent to the Argentine in 1912, would be equivalent to from 20 to 30 shiploads.

Imports of Pine and Spruce

The following table shows the value of white pine, tea pine and spruce sent to Argentina from Canada, the United States, and all countries for several years. While the United States almost monopolizes the business in tea pine, Canada has been able to export spruce and white pine in quantities which almost equal those sent by the United States.

Imports of White Pine

	1909	1911	1912	1913
Canada	578,442	1,094,995	194,940	
U. S. A.	1,811,889	1,509,729	1,791,140	
All Countries	2,546,049	2,710,800	2,207,272	1,406,879

Imports of Tea Pine

	1909	1911	1912	1913
Canada	205,622	309,610	45,312	
U. S. A.	10,885,533	8,739,188	8,371,600	
All Countries	11,205,554	9,158,953	8,460,852	9,128,464

Imports of Spruce Pine

	1909	1911	1912	1913
Canada	797,648	1,241,422	1,484,350	
U. S. A.	1,776,404	1,509,526	1,722,336	
All Countries	2,887,473	3,387,659	3,823,429	2,964,094

Falling Off in Demand

The first table of this report shows that the demand for lumber has not increased during the past five years, but rather that the opposite has taken plase. A great part of the lumber imported is uesd in building operations and on railway works. The period 1909 to 1912 was remarkable for activity in the building trade. The present economical depression, however, having seriously affected the building trade is doubtless the reason for the falling off in the imports.

It is not expected in local shipping and commercial circles that the opening of the canal will have any appreciable effect on British Columbia's trade with the Argentine. The distance from Vancouver to Buenos Aires via Cape Horn is some 8,336 knots; via the canal it will be slightly more.

While it is true that insurance rates on lumber cargoes passing through the Magellan Straits are rather heavy, the dues to be levied on shipping passing through the canal will probably counterbalance these. It is not therefore likely that the opening of the Panama Canal will, in itself, have much influence on the local market for British Columbia lumber.

Charter rates vary so much that it is difficult to make comparison. Rates from gulf ports are, of course, lower than rates from northern ports, but no spruce is shipped from the gulf ports. British Columbia spruce and Douglas fir shippers, however, have to compete against New York and St. Lawrence river shippers. Information was obtained that 120 sh. to 180 sh. per standard, of 1,980 feet from Puget Sound, ruled some two years ago, but it is difficult to obtain exact information regarding rates from the St. Lawrence river. These rates are arranged in London and rarely, if ever, in Buenos Aires.

Notes on Argentine Lumber Trade

Pitch pine comes from the gulf ports and is the stable timber used in the country for all classes of construction work, the better classes being used for floorings, camp furniture and rural buildings.

Spruce is used for light, cheap work, and comes mostly from Quebec, and Nova Scotia. A small amount comes from Norway and Sweden.

White pine is used for all joinery work, doors, windows, etc., and also for inside furniture.

Nearly the whole of the lumber importing business is in the hands of ten or twelve large firms. These firms make their purchases through New York (and sometimes London) brokers.

The rules for grading adhered to are those published by the respective lumber companies.

Arbitration is held usually at the Buenos Aires "Bolsa de Comercio," a representative of each party and a third, nominated by the Bolsa, constituting the Board.

Payment is usually made in London at 90 to 180 days acceptance against shipping documents.

West coast lumber has little sale in the Argentine Republic. A large importer who took up the question of British Columbia lumber some years ago, reports as follows:—

"On account of the climate the timber soon rots. The only big shipments that have come from the west coast were made in the period 1904 to 1907, and again in 1912, when some 6,500,000 feet were brought down for cattle fittings."

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Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND USE—COMMENT AND VIEWS ON AN IMPORTANT BRANCH OF THE TRADE.

The Sawed Veneer Industry

The development of rotary and sliced veneer has been so prominent in recent years that the sawing branch of the industry, though one of the oldest, has been overshadowed and might be presumed to have been losing ground, says C. R. O. in Hardwood Record. It is not losing, however, for sawed veneer today is the best product of all in point of quality because it is absolutely free from the rupturing of the grain caused at times in cutting, and when finished is in appearance and fact the same as solid lumber.

The saw was one of the first veneer making machines. Brunell, who is really the father of the present-day industry, invented the first veneer saws and installed a plant in the suburbs of London some time between 1800 and 1805. At that time he had segment saws of large size. One description gives them as nine feet in diameter. He sawed veneer from rosewood and mahogany logs or flitches and produced substantially the same kind of a product that we have today. It was veneer of this class that entered the fine cabinet work of that period and later was used in making fine pianos and cabinet work in this country.

Slicing was developed about the same time, and then came the rotary veneer machine, which has in some respects overshadowed other branches of the industry, especially in quantity. However, while the rotary machine has been doing big things in the way of quantity and while the slicing of veneer has continued to develop both in mahnitude and quality, the sawing of veneer has also steadily progressed.

It is difficult to get at the exact relative sizes of the different branches of the veneer industry. The Forest Service, which collects statistics and makes reports on the industry yearly, does not always give separate figures for the different kinds. In 1909 this work was done by the Bureau of the Census, and more specific details were given. In the report for that year the three processes of veneer making were mentioned. By the rotary cutting process 85.2 per cent. of the logs were cut in 1908, and 87.7 per cent. in 1909. Taking the twelve principal domestic woods in the point of quantity, about 90 per cent. of them were cut on the rotary machine, but in the matter of red gum, the leading wood, 95 per cent. was rotary cut, and perhaps the same holds true as to cottonwood, birch and basswood. Sixty-five per cent. of the oak made into veneer was either sawed or sliced, and of the mahogany 49 per cent.

During the census year 1909, 45,042,000 feet of flitches and logs were worked into veneer by sawing and slicing, but there are no figures to show just how much of this was sawed and how much was sliced. Veneer mills are sometimes operated in connection with sawmills and sometimes separately.

The standard thickness in quartered oak and veneer runs from 1/20 to 1/16 inch. This of itself explains the necessity for more accuracy and finer manipulation than obtains in any ordinary sawmill. Just a little shake, or shifting of the carriage, or a little crowding endways of the saw mandrel, and a 1/20 inch board will be cut in two in a twinkling. End play must be guarded against in both carriage and saw mandrel; the saw must run true and be very lightly and evenly set. It must be kept filed keen and not crowded in its work. And, of course, the blades must be made as thin as practicable to reduce the waste in sawdust. That is why they are made in segments and mounted on discs, and even the segments are ground tapering so that the cutting points are as thin as it is practicable to run them.

While the quartered oak business has always been the most prominent feature of sawed veneer, there is apparently an opportunity to use veneer saws in connection with sawmilling operations to do a much greater amount in plain sawing than has been done heretofore. The veneer saw is a good machine with which to make thin oak for panel stock. There is other plain sawing that may have more possibilities than have been developed. The writer recalls a mill he visited several years ago where thin poplar lumber was being made with veneer saws, the mill saw simply flitching the logs and the veneer saws making them into thin lumber, which was a smoother product than would have been made on the mill saws and was made with less loss in kerf.

This is a point where the veneer saw and the modern resaw come into pretty sharp competition. Band resaws are made which take a very light kerf; and when they are in skilled hands and are kept up properly, they do remarkably good work and, as a rule, do it at greater speed than is customary on veneer saws.

Whether one uses veneer saws or resaws in making thin lumber, the stock should be sawed green. No process of treatment is required to prepare timber for sawing on the veneer machine. It is taken fresh from the sawmill and work on it commenced. If it is laid aside, however, and allowed to dry, it causes face-checks and these injure the first sheet or two. It is found, also, that veneer from partly seasoned flitch will warp and check more than that from green lumber because it has partly dried out and a multitude of strains have been set up in the timber.

If flitches can not be worked up immediately and must be carried in stock, one should have sheds to protect them from the sun. The best way is to operate a veneer mill in connection with a sawmill, or reverse the order and have a sawmill to do the flitching for the veneer mill so that the raw material can be purchased in the log and flitched as needed.

There are sawed veneer plants, however, operating successfully which buy flitches instead of logs, which reduces the amount of capital required for the original equipment, but increases somewhat the necessity for care and watchfulness in buying raw materials to have enough coming all the time to run steadily and yet not get an accumulation that will dry out and deteriorate before using.

Japanese Oak

There is practically only one kind of wood exported in any large quantity from Japan to Europe, viz., oak, says The Timber Trades Journal. Without having visited the Land of the Rising Sun it is difficult for those in Western Europe to form any mind-picture of its vast timber resources. To commence with, it possesses a fertile soil and humid climate, except in winter, when the northern portion, called the Hokkaido district, usually experiences severe frost and heavy snow. The forests of Japan cover 74 per cent. of the total area of the country, a fact which explains why such a small country, as "Westerners" like to think it, can not only supply its own timber requirements, but is able to export large quantities also. It is quite clear that its resources are not being undermined, becaust the latest statistical return gives an area of over 86,000 squaer miles of growiug timber. Rigid forestry laws are in force to conserve and protect existing forests, and at the same time attend to reafforestation. In the latter case the State gives young trees to the people where necessary. The forest products are many, but at present "Jap" oak is the only one to be touched upon in this article. It grows in the Hokkaido district above referred to, and mainly on the highlands and in the mountainous districts. This portion of Japan covers an area of about 30,500 square miles, and is indeed more thickly wooded than that further south. Incidentally it is between the same latitudes and similar in altitude to the forests of Austria and Virginia.

Japanese oak has been known on the European market for the past six years. At first it was subject to much suspicion, without any good reasons. Jealousy on the part of the sellers of other kinds of oak, who possibly did not like to see their market interfered with by any "outsider," was to some extent responsible. Those who shipped the "pioneer" parcels were also to blame, because much of the wood had not been felled at the proper time of the year, and for other reasons was not in shipping condition, consequently the "first impressions," which should have been favorable, as far as the wood itself is concerned, were in some cases the very reverse. Then, again, too much was claimed by its votaries; users looked for a degree of excellence built up by big claims on its behalf, and of necessity were disappointed. In this way the hands of the clock were "set back" on a wood of undoubted merit and great beauty. Mention must also be made of the idea that gained currency that the Japs were exporting the wood because of its inherent defects. Considerable color was given to such a libel by the undue haste made at the outset in sending much larger quantities than the market could conveniently digest. This has in a large measure been remedied, but much time must necessarily elapse before the errors of the past are removed. Of late solid progress has been made, and it now only requires intelligent handling, and not too heavy supplies, to put this magnificent wood in the proud position it is destined to fill in the civilized world. To do this, however, the greatest possible care must be exercised, and in this connection it is only fair to say that each shipment as it arrives is superior to its predecessors in quality, condition and manufacture. Shippers have lost many yen by inexperience, and the Japanese are the wrong people to perpetrate anything which would bring them less than they might otherwise get for their wares. Some little difficulty has been met with at times in seasoning the logs after sawing, owing

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to cracks and shakes developing; experience is required to season the wood properly. The best results are obtained by skidding the logs as cut in a cool place, or where they are not fully exposed to the direct light of the sun.

Up to the present most of the wood has been imported in the form of hewn logs. There have been a number of flitches or billets free of heart, also a limited quantity of staves. The logs show the "dog" marks made by the spiked bars used in handling up to the time of shipment. These do not improve the appearance, and are certainly in excess of what is experienced with any other kind of log timber, but are easily removed when taking off the slab. In the matter of quality present shipments leave little to be desired; the average length is short, but this is not a serious drawback. Emphasis should be laid on the good average depths obtainable, and in this respect it has no compeer. In color and texture it is well up to the best qualities of other kinds of oak, but it has less density, or "body," as it is termed. In other words, it is lighter bulk for bulk, but when finished by the cabinet-maker it is frequently mistaken for other varieties of a heavier description. It is without question splendidly adapted for all interior and decorative work. Whether it is better than this or that kind of oak matters little; the point of most importance is that as the wood gets known and better understood by present users it will win devotees in every direction. No wood ever set out to win popular favor with a better chance of success by sheer merit than "Jap" oak, despite obstacles of all kinds.

A New Form of Milk for Camp Use

Recently milk in powder form has come into use quite largely for the requirements of lumber companies and other concerns operating camps, and has proven to be in many ways a welcome addition to the camp supplies. It is probable that, as this product becomes better known, it will be found in almost every camp.

The product most largely used is a separated milk powder made by a process recently perfected, which makes perfectly soluble powder. For tea, coffee, and so on, it is usually mixed with water and is used as the ordinary liquid milk. The manufacturers, however, do not recommend it so much for this purpose as for use in every kind of cooking where milk is ordinarily used. For cooking, the milk powder is mixed in dry with the other ingredients and where the recipe calls for milk, water is used in its place, the milk having been already supplied by the powder which has been used.

Many camp cooks have now become familiar with the use of this milk powder, and, after once becoming accustomed to it are loud in its praise. It is only the inexperienced cook who has any difficulty in its use, and a short experience of actually using the powder does away with every difficulty.

The greatest advantages to be obtained from the use of this milk powder are those of convenience, improved quality and flavor, and economy. In milk powder, the amount of water is considerably less than that of flour, and amounts to less than 2 per cent. It is evident, therefore, that so far as weight is concerned, which is often an important factor in many lumber camps, milk powder has a very important advantage. The same amount of milk value will weigh only about one-quarter as much in the form of powder as it does in other forms, and only about one-tenth as much as in the form of ordinary liquid milk.

Intense cold does not in any way injure the powdered milk, as the amount of moisture in it is so small that freezing has no effect upon it at all.

So far as economy is concerned, even aside from freight rates and transportation, this milk powder has decided advantages. The proof of this is shown in the fact that large lumber companies are buying it in increasing quantities, and many of them have informed the manufacturers that they will never again be without it for camp use.

Another great advantage of this product is that it will keep for a long time even after the can has been opened. For camp use, the milk powder is usually put up in cans containing 10 lbs. and large cans containing 50 lbs. net weight of the powder.

It is probable that the use of milk in this form will increase largely among lumbermen and that the many advantages to be obtained by using it will, before very long, result in its almost universal use. The product is no longer an experiment, but a proven success, and is guaranteed to contain no adulterations, preservatives, or chemicals of any kind. It consists of nothing except the solids of milk from which the water has been removed.

It will pay any lumber concern having camps in the bush to investigate this product as, by it, all the difficulties in supplying milk can be overcome at low cost, and a most satisfactory product can be furnished to the men in a form very convenient for the use of the camp cook. Information regarding thsee products can be secured from Canadian Milk Products Limited, Mail Building, Toronto, manufacturers of Trumilk, Milkstock, etc.

To Buyers of Camp Supplies

You will be requiring groceries for your next season's operations very soon now, and we would like very much to have an opportunity to show you what we can do—we are giving such splendid satisfaction to many buyers that it prompts us to think that we can do the same for you—for instance ask us to send you a sample of our special Camp blend. This tea is giving universal satisfaction, for it is made up to suit the users of it—the hardy river and bush men who want something that has a taste to it—not at all the same fine mellow kind that is suitable for afternoon and pink teas. Try it. It will go farther and please the men better.

Excellent value in Valencias Prunes and Evaporated Peaches—this latter is the only line that will truly take the place of Evaporated Apples of which the market is bare, and so much cheaper—just fancy a fine quality yellow meaty peach at 7½—get in on these.

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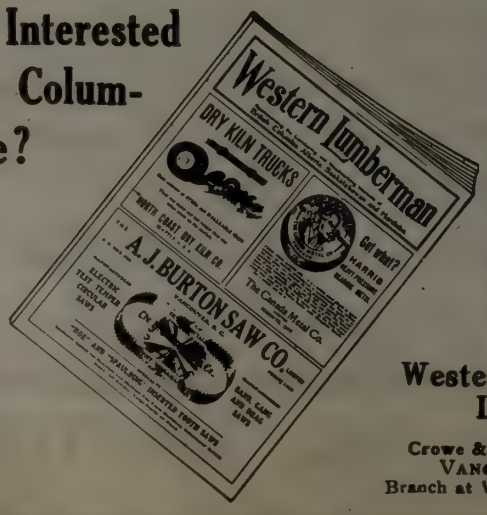

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EDGINGS

Ontario

The Briggs planing mill at Brockville, Ont., was recently destroyed by fire, the loss amounting to $20,000.

T. H. Colling, Simcoe, Ont., is contemplating the purchase of a sawmill and equipment for use at South Middleton, Ont.

The sawmill belonging to Archibald McTavish, of Cedarville, Ont., was recently destroyed by fire. The machinery and lumber were also destroyed. The loss was partly covered by the insurance.

The Consumers Box and Lumber Company, Toronto, report that their basket factory which was recently destroyed by fire at Grimsby, Ont., will be rebuilt in the near future. They have not yet decided as to the size of the new plant.

An accident which occurred at the plant of Shepard & Morse at Ottawa on August 4th, resulted in their driving engine being completely wrecked. The connecting rod broke, the head of the cylinder blew out and damaged the end of the engine shed. The accident will cause the mill to be closed down for two weeks, resulting also in 125 men being temporarily out of employment. An electric motor will be installed, until a new steam engine can be put in.

J. E. Baechler, Goderich, Ont., whose sawmill and planing mill were destroyed by fire last May, and who has made considerable progress in the erection of a new plant, reports that the town council of Goderich and the Board of Trade have suggested that he should continue the building to a height of three storeys and install a furniture factory. They are offering the firm a loan of $25,000 for this purpose, and are preparing a by-law to submit to the ratepayers in this connection.

The James Smart Manufacturing Company, of Brockville, Ont., whose woodworking department was recently destroyed by fire, report that they will replace it with a reinforced concrete building, 100 x 50 ft., three storeys high, as nearly fire proof as possible. The machinery will be driven by electric power. No contracts for the building have as yet been let, but it is expected to cost about $12,000. The building, together with the machinery and equipment, are expected to cost between $20,000 and $22,000.

Eastern Canada

Herbert J. F. Grier, lumber merchant, Montreal, Quebec, has been registered.

Mr. Thaddeus Graves, New River, N.B., recently lost his portable sawmill by fire. The loss amounted to $8,000.

The engine house of Murray & Gregory's mill at St. John, N.B., was destroyed by fire recently. The loss is said to be about $6,000, covered by insurance.

A small fire occurred on July 19 at the lumber yard of the Redfern Lumber Company, Montreal, the damage being estimated at $1,000. The fire brigade arrived before the fire in the piles had made much headway.

The Nova Scotia Lumber Company's lease of lumber lands at Walton, N.S., having expired, they are leaving the locality. The mill property has been purchased by Messrs. Albert Parsons and Ezra Church, who will manufacture barrel staves, heading and other material. The loss in business occasioned by the withdrawal from Walton of the N. S. Lumber Company will to some extent be made up by the use of the mill for other purposes.

A serious fire occurred at the Gilmour & Hughson yards at Hull, P.Q., recently, destroying about 7,000,000 feet of various grades of pine, valued at about $200,000. About 4,000,000 feet of this was owned by Hughson & Company, of Albany, N.Y., and most of the balance by Gilmour and Hughson. Thomas Mackarell lost about 25,000 feet. The total loss was covered by insurance. The cause of the fire is not known, but it is believed to have been started by a lighted match or a cigarette being thrown upon inflammable material by a passer-by.

Western Canada

The Beaver River Lumber Company, Limited, has been incorporated, with head office at New Westminster, B.C., and capital stock of $50,000.

Later reports from Nanaimo place the loss to the New Ladysmith Lumber Company, on account of the destruction of its mill by fire, at $100,000, with about half that amount covered by insurance.

It is reported that as a result of the visit to Victoria of J. Langley, representing a group of New York capitalists, arrangements have been about completed for the reopening at an early date of the mills of the Canadian

Puget Sound Lumber Company, this plant having been shut down for several months.

Wm. Gilfoy, Calgary, Alta., advises us that the report to the effect that he had recently sold extensive timber limits along Seymour Inlet, B.C., to a syndicate of California capitalists is incorrect. He adds that California and Denver capitalists are negotiating for the purchase of twenty limits located on the south side of Drury Inlet, B.C., but the deal has not yet been closed.

The six per cent. first mortgage bondholders of the Canadian Pacific Lumber Company, Limited, Vancouver, B.C., held a meeting recently at London, Eng., and passed a resolution to release the company from the payment of any moneys payable under the trust deed of April 1, 1914. The company has met with financial difficulty on account of the delay of the Exchequer Court in giving a decision regarding compensation for the expropriation of its property in Vancouver for wharf accommodation. A settlement of this matter is expected in the near future.

The Wellington Lumber and Trust Company, Wellington, B.C., has been formed to engage in the manufacturing business at Wellington, two miles south of Westbridge. The company expect to employ about 2,000 men and will erect a sawmill with a capacity of 200,000 feet in 24 hours, a box factory, brick plant, pulp and paper mill and electric light and water power plant. It is the intention to employ married men only, to whom the company will sell lots and for whom they will build houses, accepting payment on the installment plan. The White Pine Supply Company, of Spokane, are the promoters of the company and it is being financed by eastern capitalists.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

529. **Douglas fir, British Columbia cedar, silver spruce, hemlock and pine.**—A large importing house having purchased some Canadian woods through a London agent, is desirous of opening up direct trade.

612. **Box shooks.**—A London importer of box shooks wishes to obtain supplies from Canada upon a commission basis, and would be glad to receive quotations upon specification, details of which are procurable from the Department of Trade and Commerce.

613. **Maple planks.**—A London firm seeks supplies of maple planks (clean, without knots) square edged, each 1½ in. thick, 4 ft. 6 in. long, 11 in. and up wide. Quotations required ex-dock London.

614. **Douglas fir.**—A reliable importing firm in Colonge will be pleased to receive samples and prices from Canadian exporters delivered c.i.f. Rotterdam.

615. **Douglas fir.**—A large lumber house in Cologne wishes to receive samples and prices, delivered c.i.f. Rotterdam.

617. **Douglas fir, cedar, maple, elm, ash, oak staves and railway ties.**—A large lumber importing house in Cologne wishes to enter into correspondence with Canadian exporters of above woods.

618. **Douglas fir and British Columbia cedar.**—A Mannheim importing firm would like to receive samples and enter into correspondence with Canadian exporters.

620. **Douglas fir, British Columbia cedar, red and white wood, silver spruce.**—A large Mannheim importing house wishes to enter into communication with Canadian exporters of the above.

625. **Redwood lumber for mouldings.**—Five-eighth-inch by 4-inch thick; 1½-inch by 4-inch wide; 10-foot length and upwards. A Mannheim firm desires samples and quotations.

627. **Douglas fir.**—An importing house in Dusseldorf is prepared to enter into correspondence with Canadian exporters with a view to opening up a direct trade.

631. **Douglas fir, British Columbia cedar, white wood, hemlock.**—A large importing house in Dusseldorf wishes samples and prices delivered c.i.f. Rotterdam.

635. **Sawn birch logs.**—Firm in Frankfort-on-the-Main would like to receive offers from Canadian exporters of birch logs, square hewn, part of bark removed. Thickness 20-inch by 24-inch; width 20-inch by 24-inch; length 9 ft. to 12 feet.

688. **Lumber.**—A South African importer would like to be put in touch with Canadian exporters of lumber. Quotations must be f.o.b. Canadian ports.

705. **Pulp and paper.**—British house, old established, of highest standing with first-class references wants agency of good pulp and paper mills; cash advances and financial facilities granted.

725. **Box shooks.**—A London firm claiming a large connection among users of box shooks suitable for fruit and flowers, would be glad to consider offers from Canadian sawmills.

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 8-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

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2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

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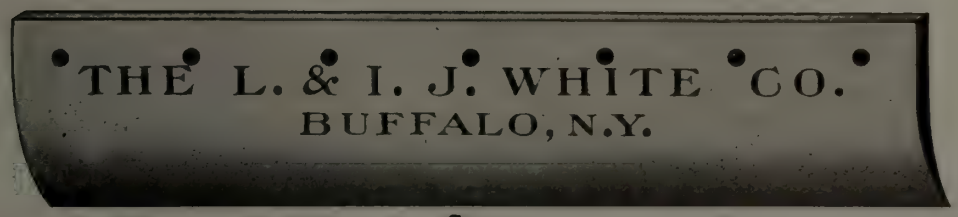

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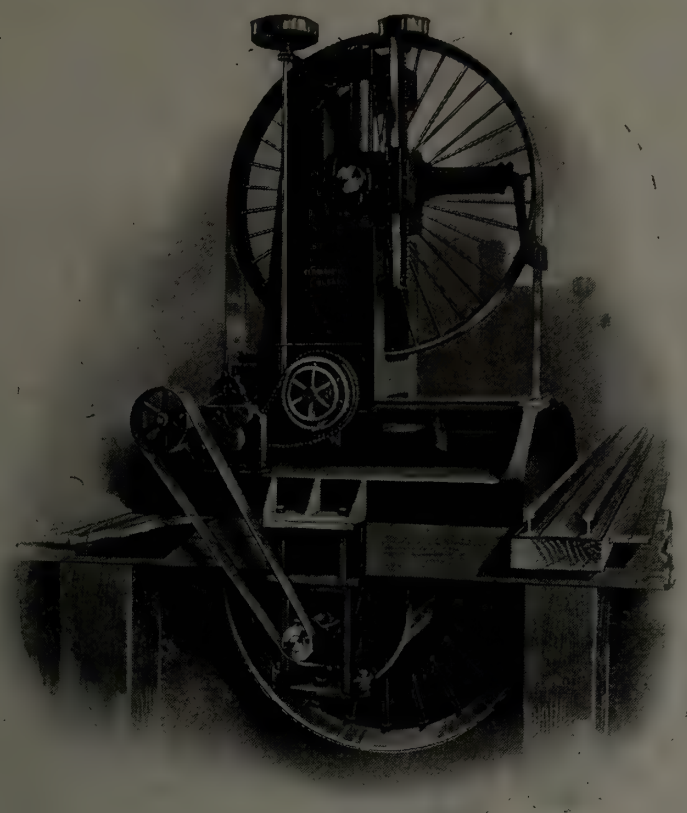

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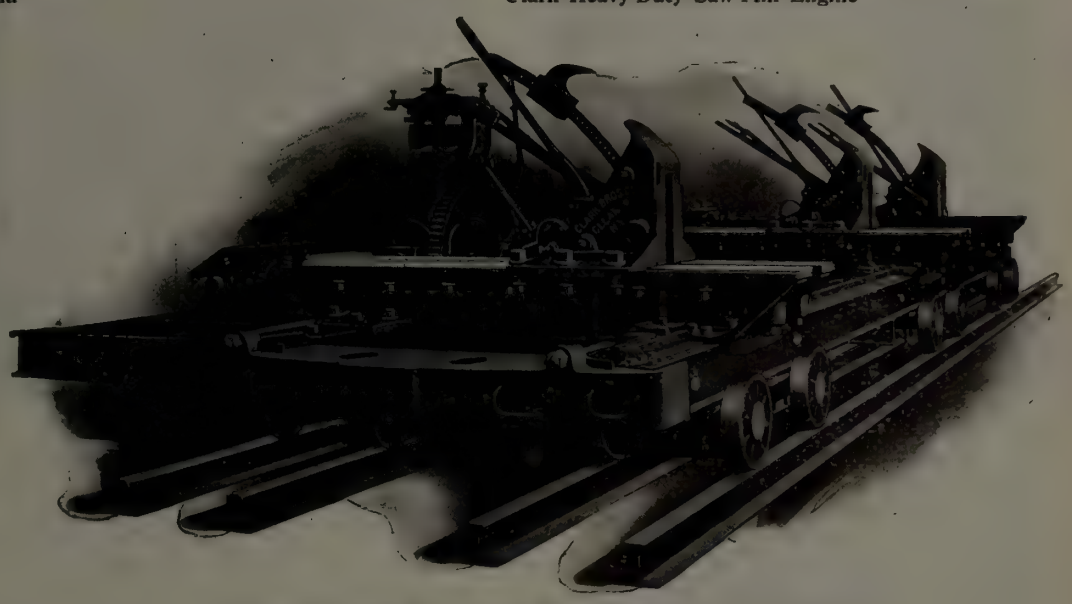

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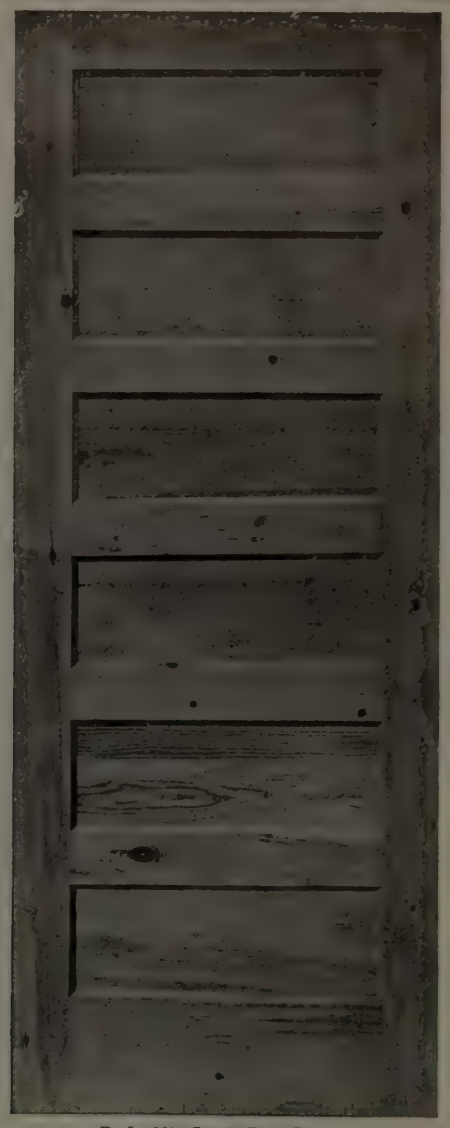

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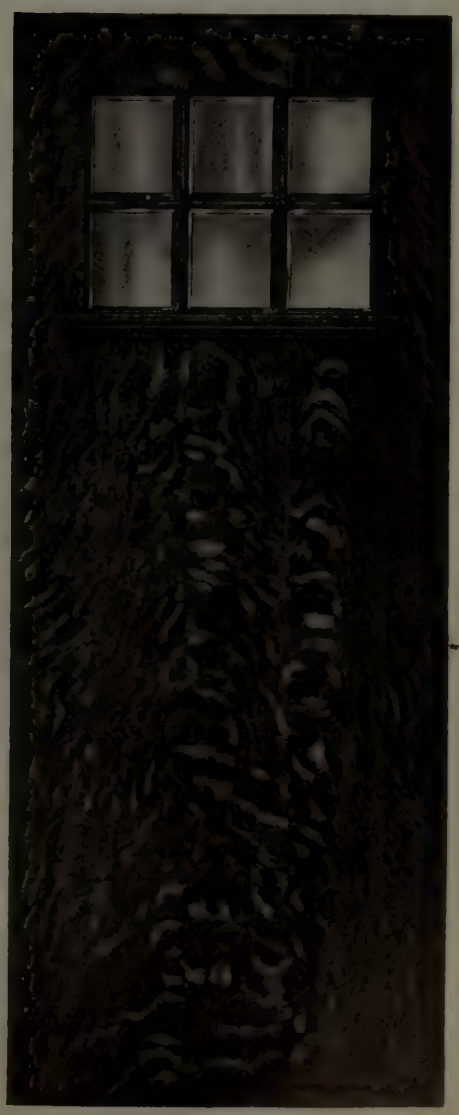

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McGibbon Lumber Company
Rat Portage Lumber Company
Snowball Company, J. B.
Timms, Phillips & Company

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Long Manufacturing Company, E.
Mereen-Johnson Machinery Co.
Payette & Company, P.

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Diver, John M.
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Atkins Inserted Tooth Cut Off Saw

The construction of this splendid Saw will appeal to you at once. It will save you lots of money if you have cut off work to do. It's the sensation of the Saw World. Making good wherever used.

rite for details and prices

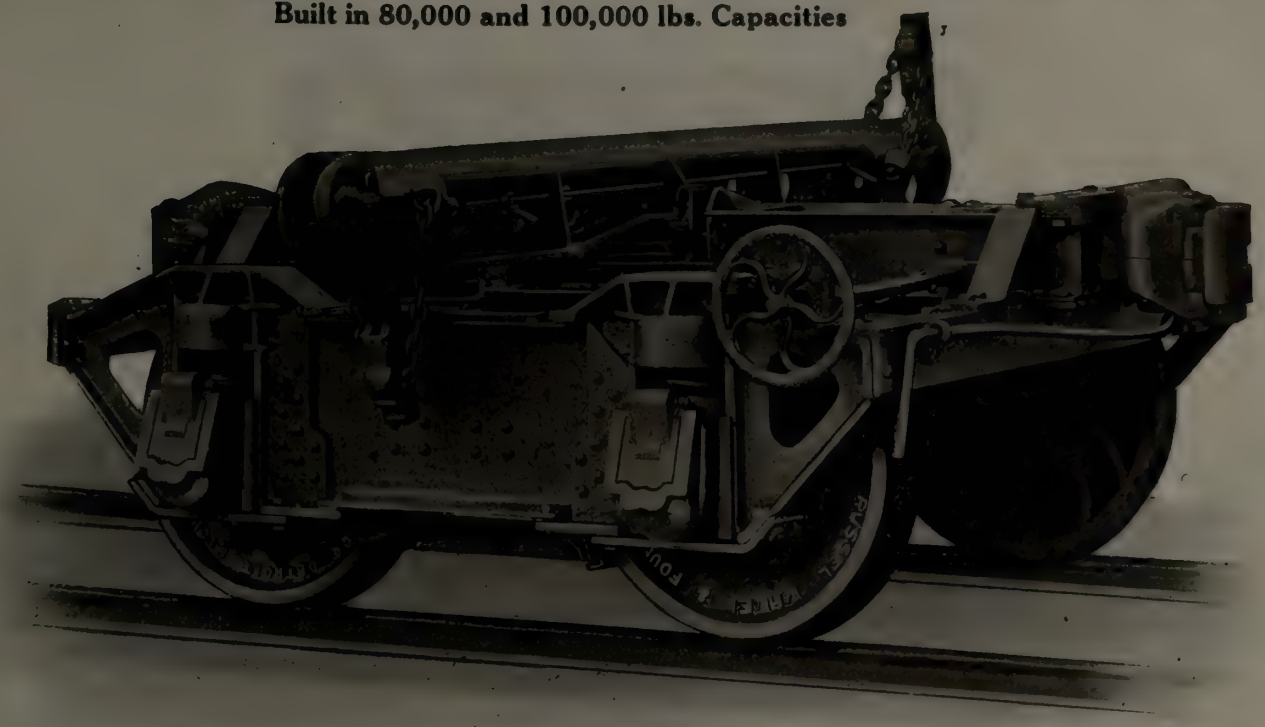
E. C. Atkins & Company

Makers of Sterling Saws

Factory, Hamilton, Ont. **Vancouver Branch, 109 Powell St.**

A NEW TYPE
Russel All Steel Pacific Logging Truck

Built in 80,000 and 100,000 lbs. Capacities



100,000 lbs. Capacity Truck

This truck was built to meet the demands of the severe service on the Pacific Coast and can be equipped with Russel Spear Edge Bunk with Drop Stakes or Adjustable Chocks, or Turn Back Bunk

An all steel truck which is stronger and lighter. No parts are below the axles and cannot be damaged from derailments. The wheels and axles and couplers are easily removed.

The increasing demand for the Russel Car has more than demonstrated its adaptability to the Pacific Coast.

Skeleton Type Logging Car

Russel Spear Edge Bunks fitted with Drop Stakes or Adjustable Chocks are practically indestructible. Logs cannot slip over Spear Edge which grips the logs firmly. The Drop Stake is absolutely safe and drops down below the bunk and does not project. The Adjustable Chock when dropped projects 1½" past the bunk and cannot be lost or broken.

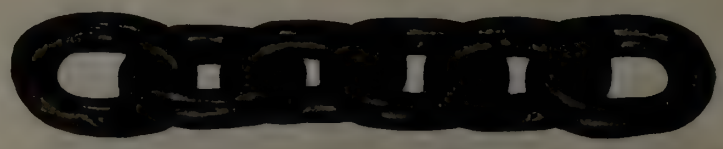
Nisqually-Russel Car and Locomotive Works
Tacoma, Wash.

Vancouver Mach'y Depot
Limited
British Columbia Representative
Vancouver, B. C.

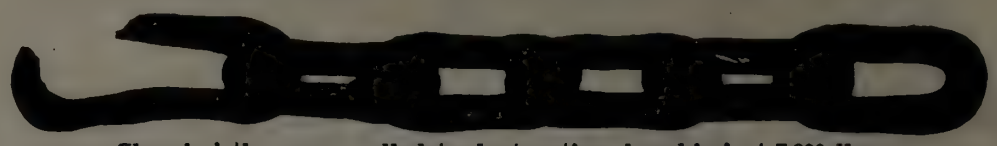
Russel Wheel & Foundry Company, DETROIT, MICH.

"Ajax" Loading Chain

Greatest Strength in the Smallest Chain



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

WELD:

Sectional view showing comparative size of weld and chain.

The stock is overlapped on itself, carrying the lap around over half the length of the link and worked down under the hammer in such a way as to allow a swell in the weld end when finished, and giving a factor of safety not used in ordinary practice. This method of forming the link and building the weld makes the weld the strongest part of the link, as shown in above link which broke at the end opposite the weld end. In ordinary practice Chain invariably breaks in the weld, the lap not extending far enough around and not having sufficient work on the weld to insure equal strength of the material itself.

STOCK: Our long experience in the manufacture of Chain has taught us that a high grade Chain cannot be made of poor or cheap material, and we are using the best steel obtainable for this Chain, far superior to the Norway iron formerly used for making this grade of Chain, being higher in tensile, tougher and withstanding greater wear.

INSPECTION: We keep inspectors constantly inspecting the manufacture of the Chain at the fires, also prior to and after proof testing, to prevent any Chain leaving the factory which will not come up to our guarantee.

TEST CERTIFICATE Every pound of this Chain is proof tested to strains shown in our catalogue and test certificate furnished. Breaks are made often enough to insure quality being maintained.

GUARANTEE: This Chain we will guarantee to pull stiff before breaking and every pound will be replaced which does not meet this guarantee. In other words, this is a guarantee that every weld is perfect and that the stock itself is uniform.

Users of **"Ajax"** Chain are always satisfied customers and our friends: and, like all others we desire to increase our friends. Allow us to do so by shipping you **"Ajax"** Chain.

Manufactured only by

Standard Chain Company

Pittsburgh, Pa.

Largest Producers of Chain in the World

With Two Sheared Toggles

McKinnon Electric-Weld

McKinnon Swell-Weld

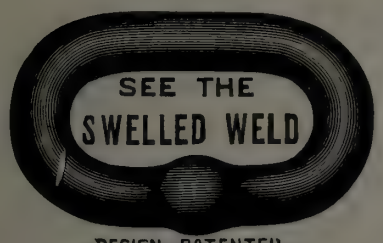
"Dreadnaught" Steel Loading Chain

Does not break at the Weld

MADE IN CANADA

MADE IN CANADA

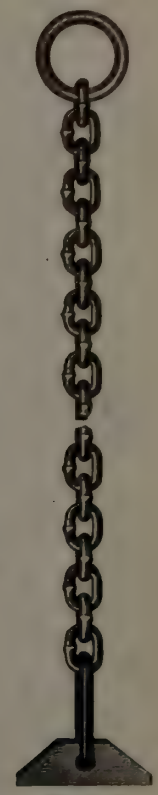
5-16 in. Dreadnaught Steel Loading Chain, pulled to stock break at 9230 lbs. proving the weld the strongest part of the link. Tested at Syracuse University September 27, 1912.



DESIGN PATENTED

Note the increased material at the weld, strengthening the only possible point of weakness, by the addition of 25% more stock and thereby adding 25% more strength. In our chain the weld is actually the strongest part of the link.

DESIGN PATENTED



Ring and Sheared Toggle

The strength of a chain is that of its weakest link, therefore, a chain for loading purposes is required to have all links perfectly welded and of uniform strength. Our chain is formed and welded on automatic machines, with pressure and current so regulated to give each weld exactly the proper amount to assure a perfect joint.

The material used in the manufacture of Dreadnaught Steel Loading Chain is the highest grade of steel, made to special analysis to meet our requirements. Samples of chain are constantly being taken from the welders and tested to destruction Unless samples show a stock break, that run of chain is rejected. Every pound of chain is actually proof tested before being shipped, this test being higher than the safe working load.

All chain is sold under our absolute guarantee of weld perfection, with replacement free of charge if it breaks at the weld.

Combined tensile and distortion test, proving weld perfection

Made in Canada at St. Catharines, Ont.

Boom and Rafting Chain

T-BAR HOOK AND LONG END LINK

Log and Binding Chain

This engine is 13 ins. x 16 ins. and weighs 30 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

May we send you specifications

Canadian Locomotive Company, Limited, Kingston, Ont.

Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

LOW MAINTENANCE COST LOCOMOTIVES

The life of a locomotive depends upon the care taken in manufacturing. Care in manufacturing increases profits by decreasing cost of maintenance and repairs.

From their long experience in locomotive building, our engineers have learned what is necessary to increase the life and usefulness of this class of equipment. They are qualified to co-operate with you in selecting the locomotive best suited for your work. Let them help you.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

HEISLER
Geared Locomotives

This HEISLER Locomotive is built for Heavy Duty, Uneven Tracks, Sharp Curves and Steep Grades

Showing 3 Truck, 12 Driver Machine

Made strong to minimize the cost of logging—enabling you to haul larger loads.

Made durable to equalize your initial purchasing expense—by giving you many years of faithful service.

Made simple to avoid the necessity of an expert mechanic to operate—all parts easily get-at-able and replacement of worn parts from our regular stock can be made without special shop facilities.

A close comparison will reveal many other points that mean dollars and cents to you who have uneven tracks, sharp curves and steep grades.

Heisler Locomotive Works

Erie, Pa., U. S. A.

Whitney Engineering Co., Tacoma, Wash., Western Representative

Do You Want CHAIN of Any Kind

Weldless Steel, Electrical Welded, Proof Coil, Short Link Crane, B.B.B. Crane, Special Dredge, Steel Loading, Twisted Brake, etc.

Chain Fittings, Boom Chain, Slings, etc.

Write Us and Save Money

QUALITY—guaranteed as chain is tested on our own machine, and we stand behind it with a fifty years' reputation to uphold.

PRICE—the lowest. We carry the largest stock in Canada and keep it moving by selling at figures that will get your business.

DELIVERY—Orders are filled the day they are received.

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Office and Works: Ontario St. East, Darling and Davidson

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Logging and Flat Cars

Always have on hand a full line of

Rails–Yard Locomotives–Cars

NEW AND SECOND-HAND

12 to 80 Pound Rail Carried in Stock.

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PRICE $80.

Ideal Variety Sawtable

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Iron Tilting Table, 12 in. saw, Ripping, Cross-cut and Mitre Fences.
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Size "S" Single Mill with 16-foot Carriage

Size Husk	3 feet by 6 feet 3 inches	Width of Carriages	33 inches
Diameter and Length Mandrel	2 3/16 by 55 inches	Trucks	7-inch wheels and 1¼-inch axles
Size Drive Pulley	20 by 10 inches	Length Track	32, 40, 48 or 56 feet
Feed per Revolution of Saw	0 to 3¼ inches	Style and Opening of Blocks	Cl-36 inches
Feed Belt	4-inch Gandy	Style Mill Dogs	Pony Excelsior
Largest Diameter Saw	56 inches	Style Set Works	No. 1 Single Ratchet
Length of Carriages	12, 16, 20 or 24 feet		

With each complete size "S" mill we furnish one saw, wrench, cant hook, feed belt, pulley with boxes for tightener and foundation bolts for husk.

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This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

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Free---Catalogue No. 92 showing a complete line of

Modern High Duty Wood-working Machinery

MR. Woodworking Machinery User, we will send this handy reference Book to you free of charge. It contains illustrations and descriptions of the most modern machinery for the Saw and Planing Mill; Car Shops; Box, Sash, Door and Blind Factories; Furniture Plants, etc.,—it gives details of construction and capacity. You should have it filed in a handy place.

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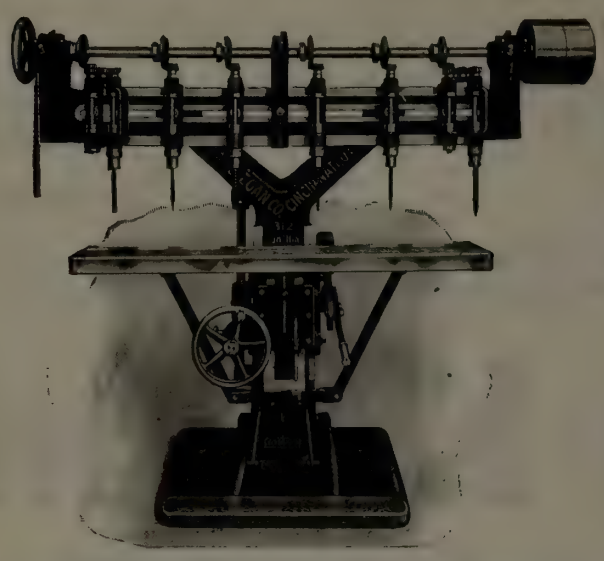
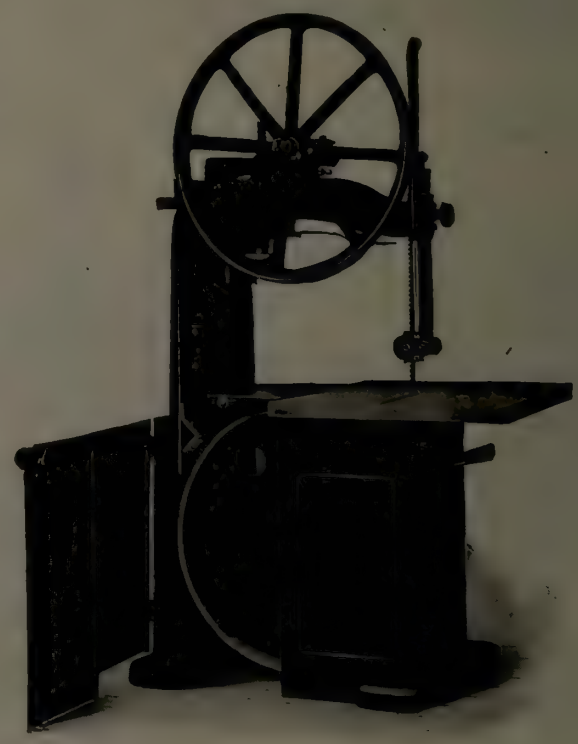


FAY-EGAN "Lightning" No. 312 Multiple Borer will bore all the holes in your piece of stock at one stroke of table—or the time taken to bore one hole with single spindle borer.

If you are building a new plant this book will be a great help in the selection of the proper tools to make your plant up-to-date, a profitable investment and manufacture your product at the lowest cost.

No user of Woodworking Machinery should fail to fill in the coupon and mail it today for a copy and get some new ideas on cost cutting labor saving and profit boosting machines. Thousands of your fellow manufacturers have found it profitable to send for this book and check up their equipment. It will pay you to do the same.

FAY-EGAN "Lightning" No. 330 Variety Saw the most accurate and quick adjusting machine made. The combination tool for the small shop when equipped with Hollow Chisel Mortising and Boring Attachment.



FAY-EGAN "Lightning" No. 50 Band Saw, square column and patented knife edge straining device make this saw produce more work at less operating cost than any other.

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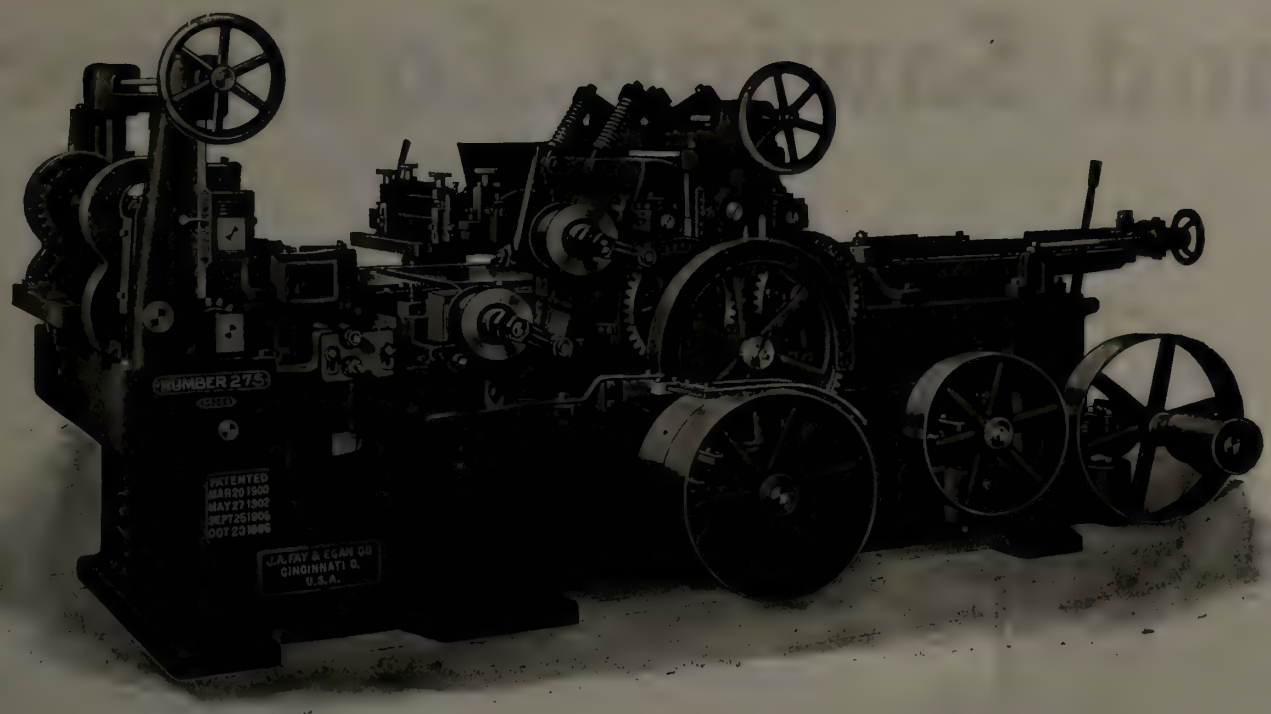
The medium weight and medium priced Planer and Matcher for the general mill

FAY — EGAN "LIGHTNING" 275



No. 275 will do

—all the matching and sizing up to 24″ x 8″.
—all the double surfacing up to its full rated capacity.
—all the flooring you will need.
—all inside molding up to 1¼″ deep.

In one factory it runs

over eight million feet of 1″ x 7″ roofers in one year.
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Initial cost

and operating expense are well within the means of every planing mill and factory owner —every convenience and time saving adjustment of the Fast Feed machines are incorporated in the 275.

It has made money---

big money—for hundreds of successful planing mill and factory owners, men who, like you, are operating a general purpose mill. It will do the same thing for you.

You are losing profit every day you wait—send the coupon to us today—now.

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The Bathurst Lumber Co.

Saginaw Band Resaw, Style "K"

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Band Resaws and
Band Ripsaws
are built for all requirements in sawmill, planing mill or factory.

Get a copy of
OUR ILLUSTRATED CATALOG

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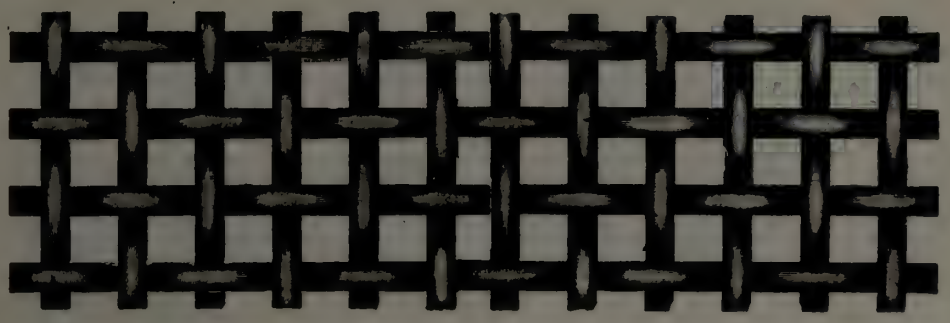
New Standard 60 in. Band Resaw

Power Feed Band Ripsaw No. 1

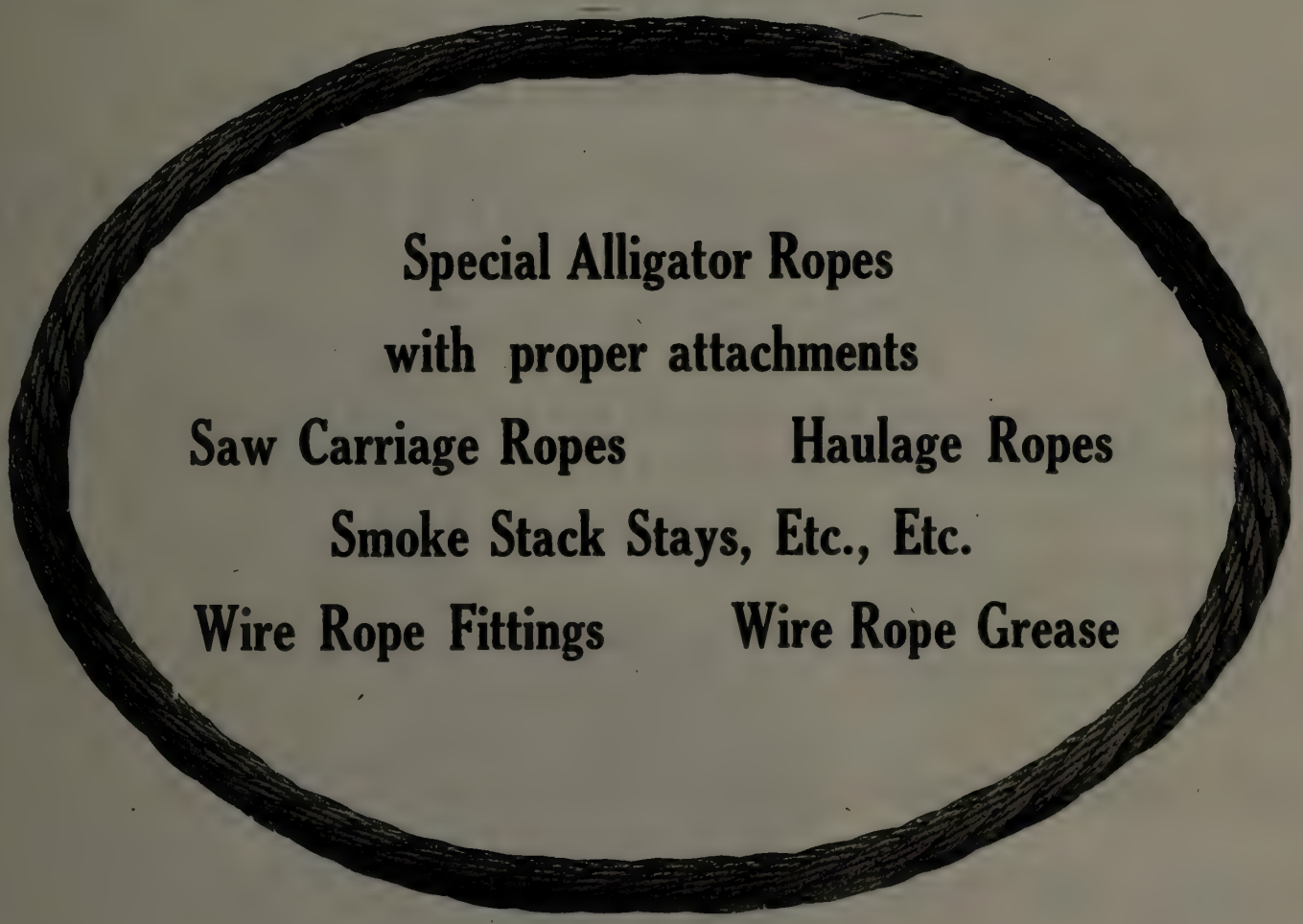
Wm. B. Mershon & Co.

Saginaw ∴ Mich.

Wire Cloth
For Refuse Burners



Wire Rope



Special Alligator Ropes
with proper attachments
Saw Carriage Ropes Haulage Ropes
Smoke Stack Stays, Etc., Etc.
Wire Rope Fittings Wire Rope Grease

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Horizontal Tubular Boiler with supporting lugs as built in lengths up to 12 feet

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¶ An assorted stock up to 72" x 18' 0" constantly carried on hand or in process of construction, enabling us to make prompt shipments.

¶ In this department we also build Locomotive Type Boilers, Vertical Tubular Boilers, Tubular Heating Boilers, Internally Fired Boilers, Smokestacks and all kinds of Steel Plate Work.

¶ Our boilers are built to conform with the various Provincial Inspection Acts.

¶ Your enquiries are invited.

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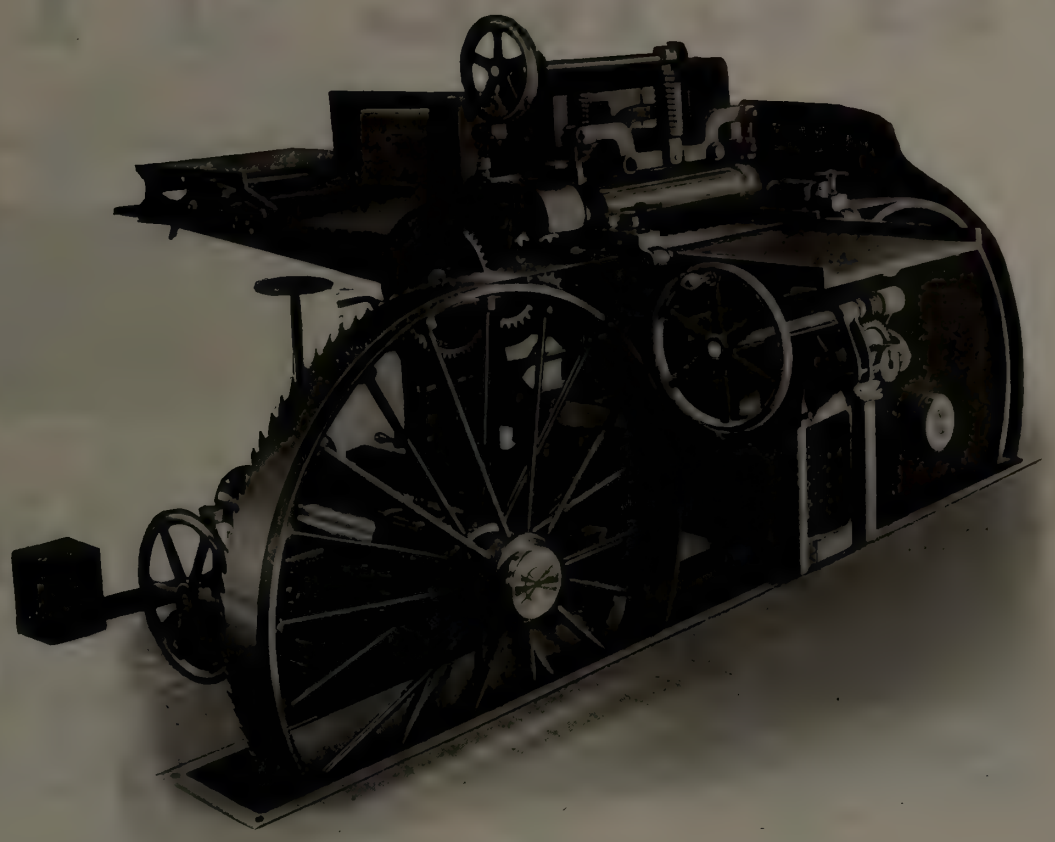
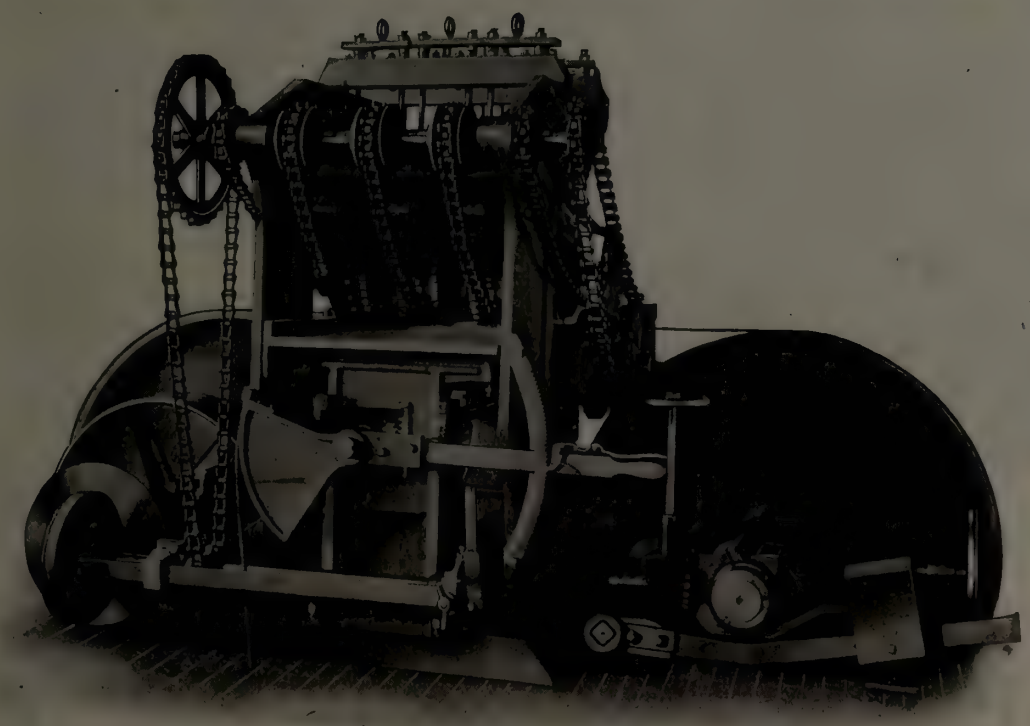


Saw Mill Machinery



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Short Lumber Edgers

Short Lumber Trimmers

Short Log Spillers

Catalogue gladly mailed upon request

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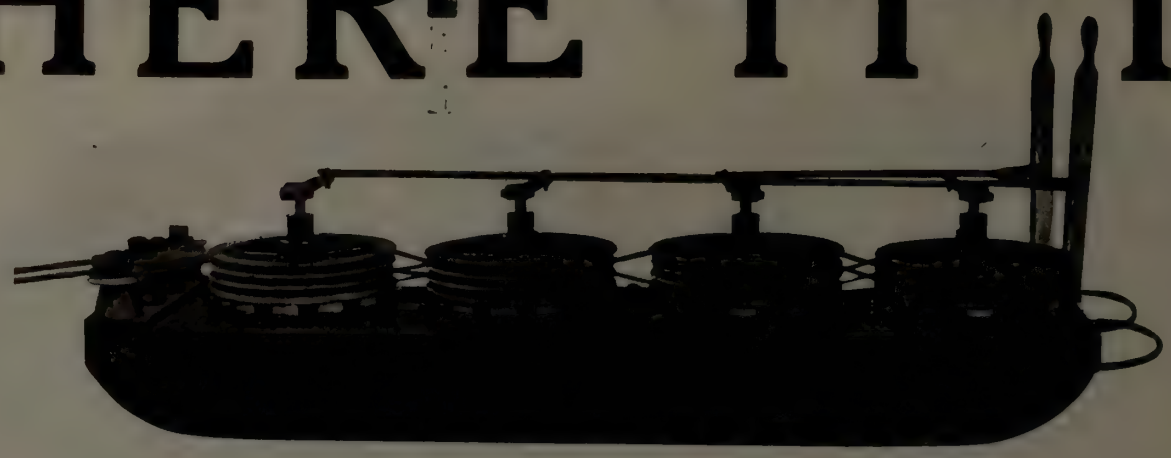


The Barienger Braking Device

for letting heavy loads down steep hills and inclines
SAVES HORSES and ELIMINATES SAND HILLING

Multiple Saw Slashers for reducing long logs to short uniform lengths—installed by us in many of the leading Canadian Plants.

Write for Catalogs.

Rythor & Pringle Co.

Carthage, N. Y.

BERLIN RESAWS Assure More Profits—Every Hour of the Day, Every Day of the Week, Every Week of the Year.

Berlin Resaws Produce Economically

These resaws are especially adapted to Canadian Planing Mill and factory conditions. No. 341 has 54-inch wheels and tilting feed works. No. 342 is a 64-inch, short saw machine with large capacity and powerful feed works.

There's a Berlin resaw especially designed for your work. There are single verticals for light, medium or heavy duty and a twin vertical for long shook stock; the single horizontal and the twin horizontal for resawing short shook stock, besides the slab resaws. All Berlin band rip and resaws and band mills are simple in design and operation and easily kept in order. Whatever ripping or resawing you want to do can be done at lowest possible cost on a Berlin.

Easy to Operate

On Berlin resaws the conveniently placed operating devices make maximum results easy to obtain. That's why any average workman can successfully operate them and also why reduced cost is assured.

The wheel tilt and quick cross-line adjustments are especially conveniently placed. The top saw guide adjusts from the front of the machine; a throw of a lever changes the speed of feed. The rolls are positioned by a quick, accurate set works.

Easy to File For

Filers say that blades on Berlin resaws endure longer runs at fast feeds—that our very sensitive Knife-edge straining device is assurance against cracked blades. The saving made because of low upkeep cost of blades and machine is one reason for installing Berlin resaws. Before you decide on any particular resaw, investigate thoroughly the merit of Berlin "Quality" built band sawing machinery. Berlin resaws are working in many Canadian mills. See one in operation.

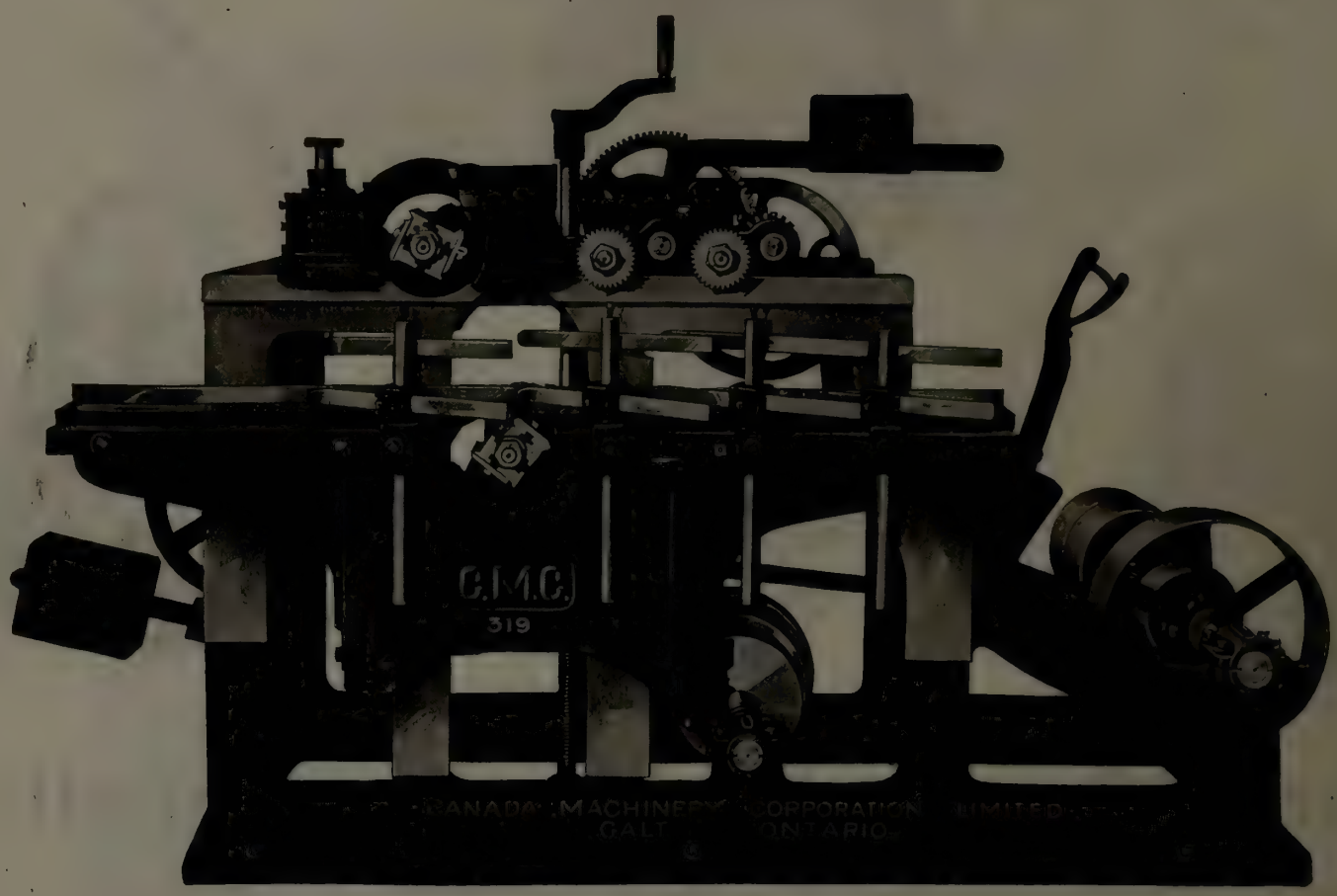
We'll send you complete data and the address of your neighbor user if you'll drop us a card request.

BERLIN MACHINE WORKS, LIMITED, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World

UNITED STATES PLANTS, - - - - BELOIT, WISCONSIN

DOOR C.M.C. STICKER



No. 319 Double Door Sticker

Designed for sticking both edges of stiles and rails for doors and sash at one operation.

The feed rolls are made to swivel on the frame, a new "C.M.C." feature that meets with the approval of practical millmen. This arrangement enables the operator to adjust the lead of the rolls to suit the quality of the material, thus overcoming the difficulty often experienced with machines of this class.

Three rates of speed can be obtained, and the change made from one rate to another without stopping the machine, thus saving considerable time.

It will take stock from 2½ inches to 15 inches wide and up to 4 inches thick.

Descriptive Bulletins on Request.

Canada Machinery Corporation, Limited

Galt - Ontario

BUILDERS OF HIGH GRADE WOODWORKING MACHINERY

"Leather, like gold, has no substitute."

A Busy Belt For 86 Years

Here is a striking example of what we mean when we say our belting costs less per day of service.

The big belt in the circle started work in 1878 and after being on the job for thirty-six years it was replaced by a new one. The other five belts were rebuilt from the original and each is good for a minimum of 10 more years of service—an aggregate of 50 years! Making the total aggregate of 86 years of service.

Everyone of the selected hides we buy is tanned in our own tanneries under our closest supervision. One of the many reasons for quality in our belting.

Ours are the belts that should be on your pulleys. Write us about your next order.

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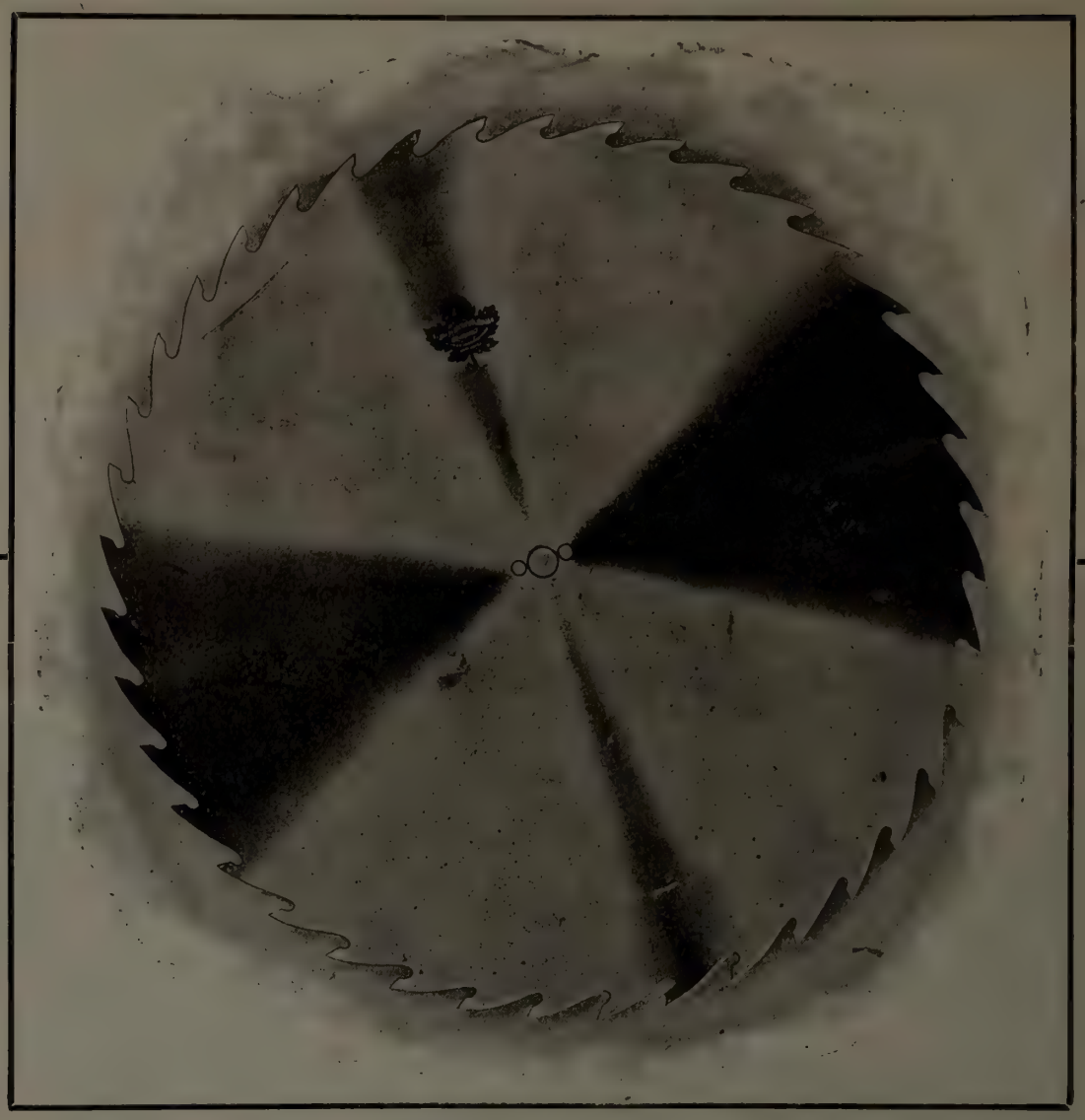
To insure satisfaction—state where belt is to run.



Maple Leaf Saws

Maple Leaf Saws

Going Strong Again in Our New Plant

With our fine new manufacturing plant at Galt, Ontario we are in a better position than ever to turn out the best quality of saws and tools.

The "Maple Leaf" tempering process has always been acknowledged the best in the world. With a complete new plant behind the process, the "Maple Leaf" brand of saws will stand farther than ever in the forefront.

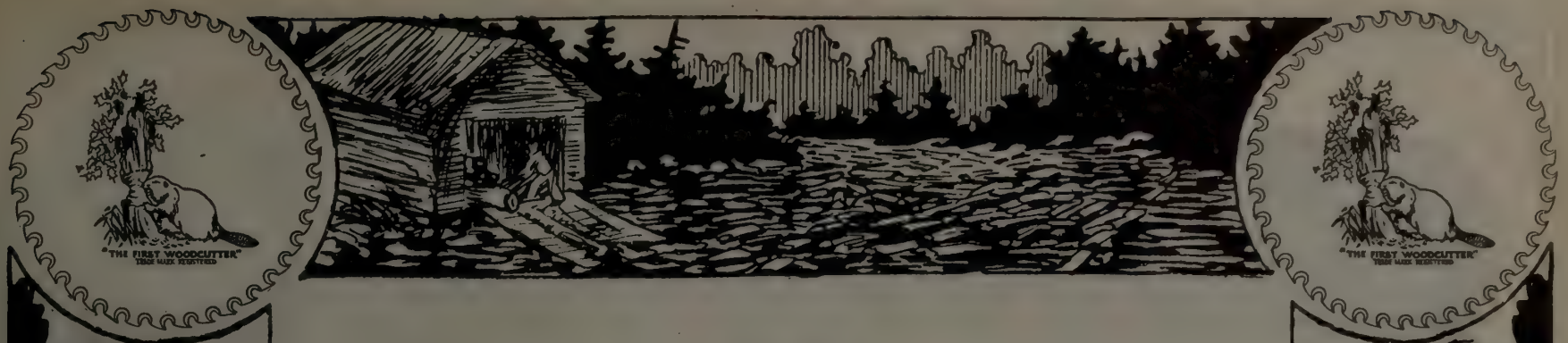
Large stock of saws in Western Canada at our Vancouver Branch. Also branch at Hull, Quebec.

Shurly-Dietrich Company, Ltd.

Galt, Ontario

and 1642 Pandora Street, Vancouver, B. C.

No. 55 Improved Racer Cross-cut Saw



Radcliff Saws

IN Radcliff Saws lumbermen will find the highest degree of perfection. They are tempered to maintain their keen edge and tension, pliable enough to avoid breakage and rigid enough to be economical in effort

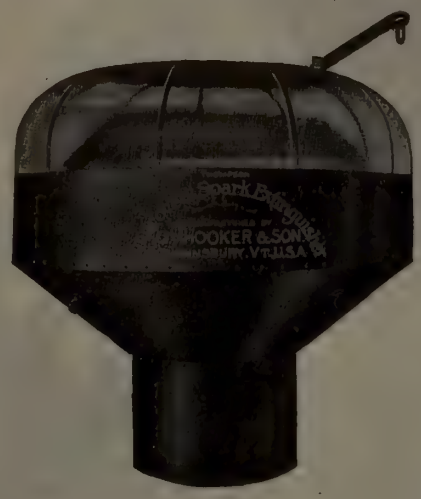
Radcliff Saws are made in every type, inserted tooth, solid tooth rift saws, shingle and heading saws, grooving saws, mitre saws, wide and narrow band saws, mill saws, drag saws, gang saws, cross cut saws. Also machine knives.

We are distributing agents for R. Hoe & Co.'s saw bits and shanks. Carborundum "Aloxite" grinding wheels and Nicholson files and rasps. A complete stock always on hand.

Write for catalogue of Radcliff saws and mill supplies.

Radcliff Saw Mfg. Company, Limited

Toronto - Ontario



Where wood is used for fuel, the

Thompson Improved Spark Extinguisher is a Positive Necessity

This is the only appliance for the tops of chimneys and stacks that is warranted to extinguish all dangerous sparks without choking the draft.

It is no untried experiment, as there are hundreds in use at the present time which are giving complete satisfaction.

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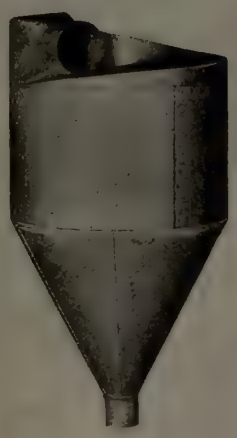

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New Systems Designed to fit your present and future requirements.
Old Systems overhauled and corrected. Trained expert mechanics.
Grain Elevators. Wood Working Plants.
Long Distance Blows a Specialty.

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"We Know How"

American No. 15 Edging and Ripping Saw.

Match Up and Joint Your Stock in one Operation on Our

No. 15 Edging and Ripping Saw

IN work to be overlaid with veneers, such as library tables, dining tables, etc., and in cheaper grades of furniture, such as kitchen tables, our No. 15 will match up and joint the stock, making the use of a hand jointer unnecessary. With this fact in mind you can readily understand how great a saving can be made in time and labor by the use of this machine. We can demonstrate the fact to you that our No. 15 can pay for itself in a short time.

Smooth Running

Absolutely no vibration, which is essential in accurate ripping and edging, and adds greatly to the life of the machine.

Feeding Mechanism

A hand lever at the left of operator controls the starting and stopping of the feed, which consists of two upper driven rolls, and a double endless feed chain in the table on each side of saw, carrying the stock through the machine with a positive straight feed, and leaving it with a smooth edge.

Table

A large hand wheel at feeding-in end vertically adjusts the table, which is supported by two screws with ball end bearings.

Feed Rolls Lift

The Feed Rolls are easily and quickly raised and lowered by a hand crank and ratchet near the operator.

Capacity

It will rip perfectly straight any length and take stock as short as 5" by the use of our intermediate hold down rolls and 14" long with our regular Feed Rolls and up to 26" wide from saw to gauge.

Quality of Work

You will be more than pleased when you examine the quality of work done on our No. 15—the work will plainly show a higher standard of manufacture at a lower cost.

Our No. 15 is the latest machine of its kind on the market-and it is in advance of any other similar idea-write for circular.

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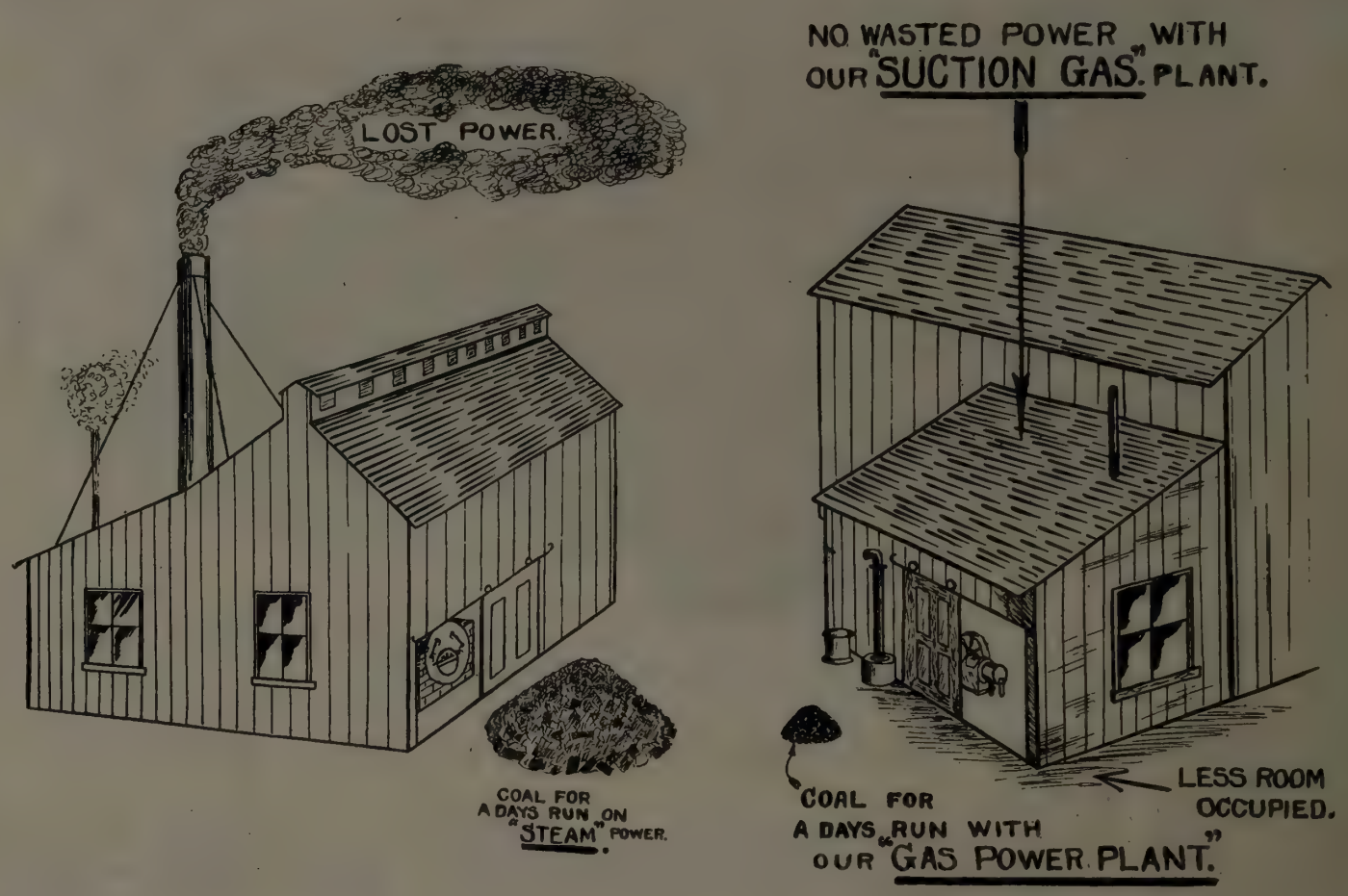
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COAL FOR A DAYS RUN ON "STEAM" POWER.
NO WASTED POWER WITH OUR "SUCTION GAS." PLANT.
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COAL FOR A DAYS RUN WITH OUR "GAS POWER PLANT."

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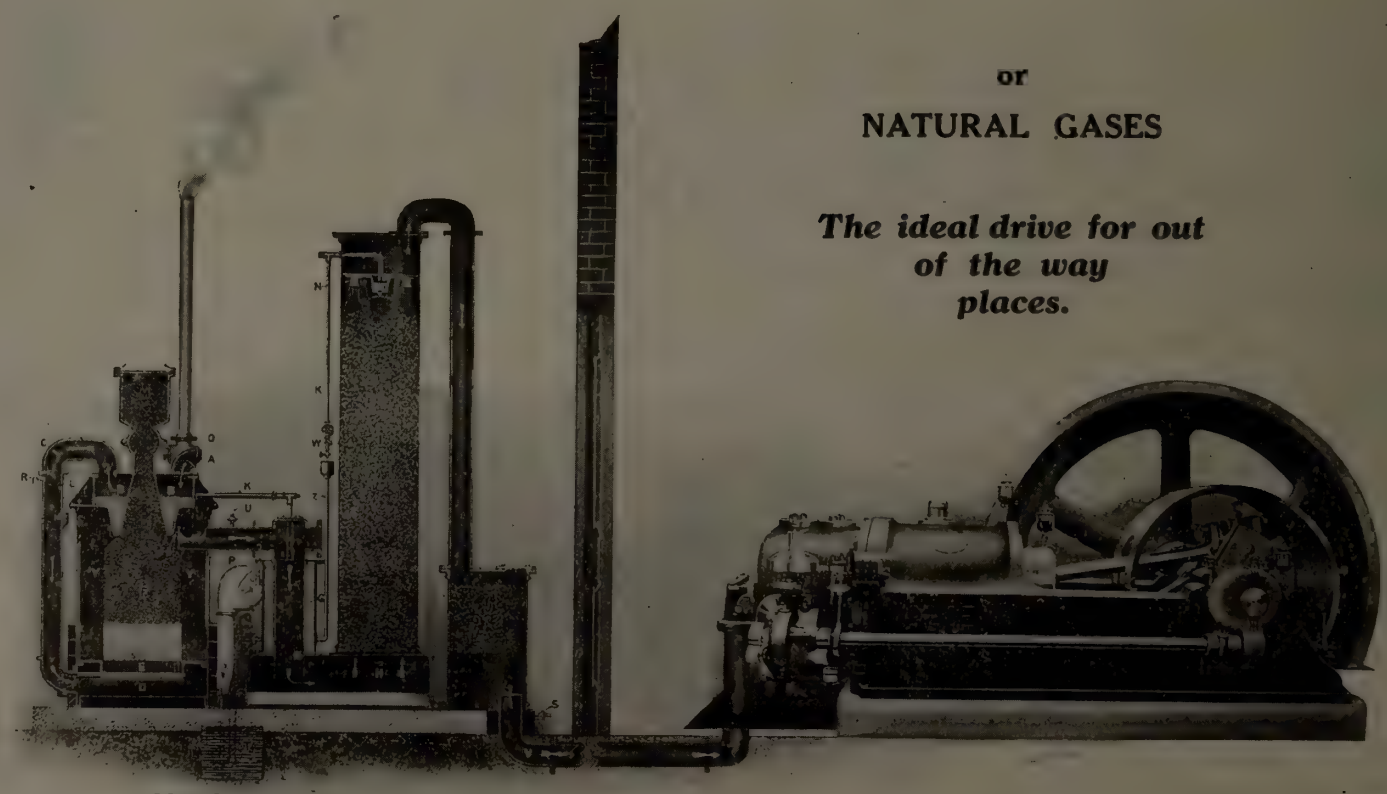
The ideal drive for out of the way places.

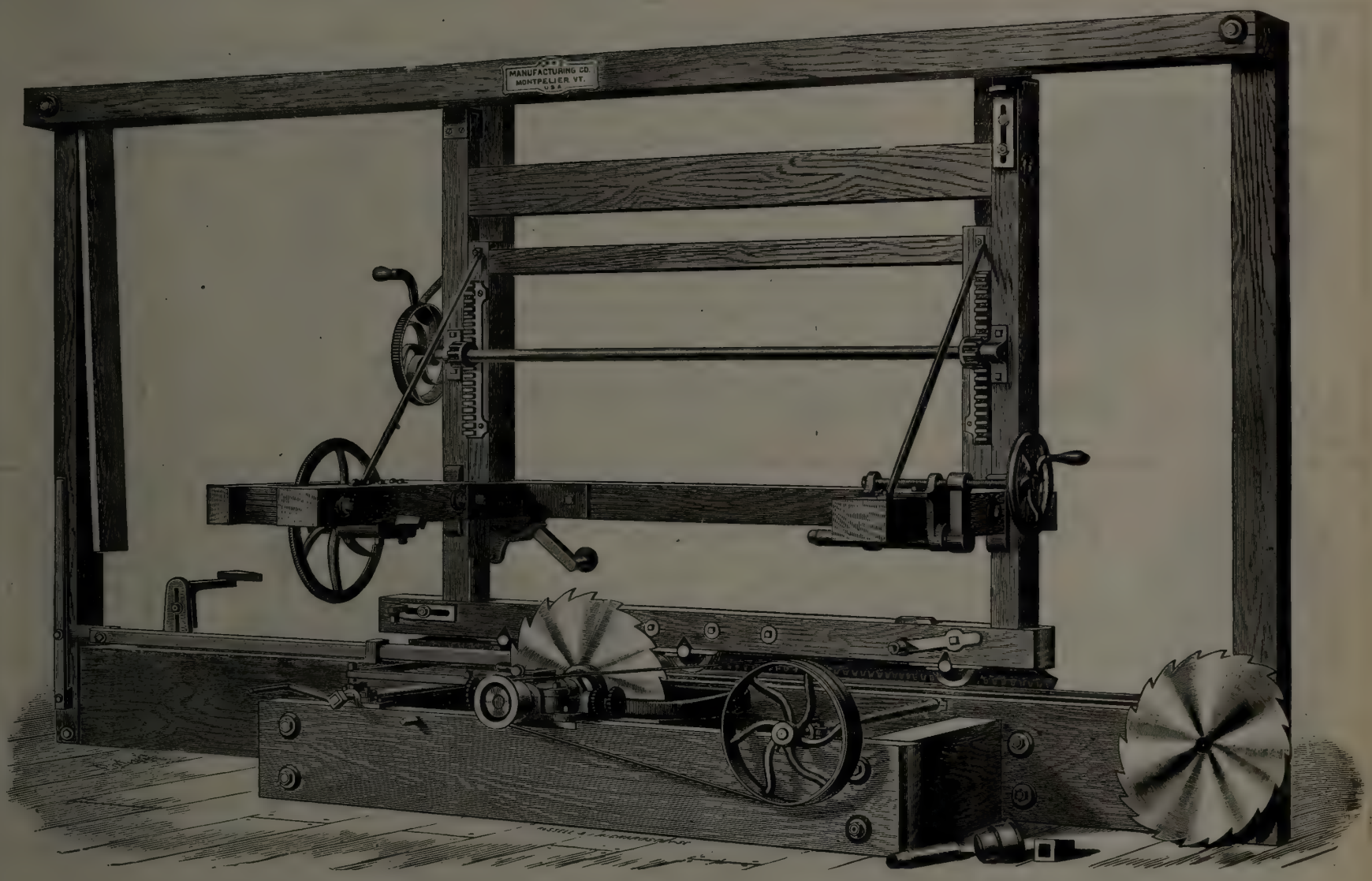


SECTIONAL VIEW

Horizontal up to 180 B. H. P.

The LANE Clapboard Sawing Machine

For Making Clapboards Direct from the Round Log



The Lane Automatic Clapboard Sawing Machine is built to cut 4 ft. or 6 ft. stock or both lengths. It can be fitted with sapper knives on the saw collar, and used thus as a complete machine, but we advise its use in connection with our Clapboard Log Lathe, which removes the bark before the logs are placed in the Sawing Machine. We also make a

DOUBLE CLAPBOARD PLANING AND JOINTING MACHINE

and clapboard Clippers, or trimmers, for squaring the ends. The Lane Guarantee covers them all.

Lane Manufacturing Company,

MONTPELIER, VT.

YOU CAN INCREASE YOUR PROFITS

BY HANDLING OUR

E. G. FIR FLOORING FIR FINISH FIR MOULDINGS

E. H. HEAPS & CO., LIMITED

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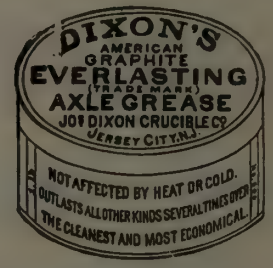
Should be done on a **Rogers - Buffalo** Full Automatic to get best results. Cut illustrates our Type "B" Grinder, with range from 54" to 130" Price $220 to $395.

We make a complete line of Knife Grinders and Saw Sharpeners, suited to every requirement.

Write for Catalogue.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N.Y.



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In hottest summer—in coolest winter—in wettest weather—under all conditions—here is a grease that can be depended upon to give real lubrication. Your teams will pull more because your wagons will pull easier. The fine flakes of lubricating graphite in this grease form a solid lubricating shell on axle and bushing that is so lasting as to greatly reduce the amount of grease needed to keep the wagon stock running right. Send for "Axle Grease Booklet," No. 238.

Made in JERSEY CITY, N. J. by the

Joseph Dixon Crucible Co.

Established 1827

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

Patented Nov. 29-1892
July 19-1910

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Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

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is one of the most important operations of veneer manufacture. The old method of drying in racks is too slow, and requires too much floor space and labor for handling.

THE "PROCTOR" VENEER DRYER

is an evolution of the rack drying method with the disadvantages eliminated. The **"Proctor"** Dryer is automatic and requires very little floor space, labor, and time for the operation. Veneer is dried by tremendous circulation of warm air.

Send for Catalogue 21 and list of eighty users.

THE PHILADELPHIA TEXTILE MACHINERY CO.
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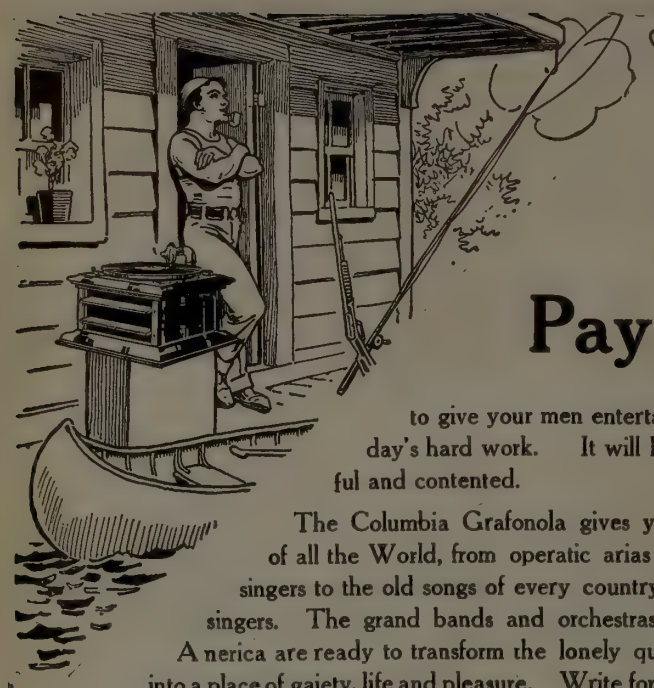

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to give your men entertainment after the day's hard work. It will keep them cheerful and contented.

The Columbia Grafonola gives you all the music of all the World, from operatic arias by the foremost singers to the old songs of every country sung by native singers. The grand bands and orchestras of Europe and America are ready to transform the lonely quiet of the forest into a place of gaiety, life and pleasure. Write for descriptive catalogue of Columbia Graphophones and Grafonolas, selling at $17.50, $32.50, $65.00 and on up to $650.00. One for every taste and every purse.

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The only Wall Board made with lath. The only Stucco Board which has a key to hold plaster. The only Sheathing which will not crack. Samples and literature free for the asking.

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"DUXBAK" Waterproof Clothing

For outdoor wear this "Duxbak" cravenetted coat is just what many lumbermen are looking for. It is light in weight and absolutely guaranteed to be waterproof. The fabric permits of perfect ventilation.

Other "Duxbak" garments are norfolk jackets, long trousers, knee pants, riding breeches, cartridge vests and a variety of caps and leggings, for both men and women.

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The J. C. McLaren Belting Co.

Limited

General Mill Supplies **MONTREAL**

Rutherford's Stock Millwork

KLIMAX

If it's made of wood we can supply it. Our line of stock millwork embraces an immense variety of patterns in doors, newels, mouldings and other trim. Buy from our stock catalogue and you can save money and be sure of prompt shipment.

We are also equipped to cater for special detail work and keep a large plant in operation for this purpose.

The stocks we carry will always be found right up to the minute, and prices will be lower than obtainable elsewhere.

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KORELOCK

The Wm. Rutherford & Sons Company, Limitd

Montreal

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better..	62 00	64 00
1½-in. No. 2 C. & B.	45 00	47 00
2-in. No. 2 cuts and better ..	47 00	49 00
4/4 No. 2 and 3 cuts		31 00
5/4 and 6/4 No. 2 and 3 cuts		37 00
8/4 No. 2 and 3 cuts		38 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	**25 00**	**26 00**
1 x 6 common and dressing ..	**27 00**	**29 00**
1 x 8 common and dressing ..	**27 00**	**29 00**
1 x 10 common and dressing ..	31 00	32 00
1 x 12 common and dressing..	34 00	36 00
1 x 10 and 12 mill cull stocks.		24 50
1-in. mill cull sidings		22 50
5/4 and 6/4 x 4 m.r., m.c. out		27 00
5/4 and 6/4 x 5 m.r., m.c. out.		27 00
5/4 and 6/4 x 6 m.r., m.c. out.		27 00
5/4 and 6/4 x 8 m.r., m.c. out.		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out		34 00
2 x 10 common		**26 00**
2 and 3 x 12 common		28 00
1 x 8 box and common 23 50		**24 50**
1 x 10 inch box and common. 25 00		**26 00**
1 x 12 inch box and common .		27 00
1-in. mill run sidings 25 00		27 00
1-in. mill run shorts		22 00
1-in. mill run Norway		23 00
2-in. mill run Norway		**25 00**
Norway, c. and cf. 1-in. 30 00		32 00
Norway, c. and cf. 1½-in. ... 33 00		35 00
Norway, c. and cf. 2-in. 33 00		35 00
Spruce mill culls		19 00

Hemlock No. 1:	
1 x 4 and 5-in. x 9 to 16 ft. ..	19 00
1 x 6-in. x 9 to 16 ft.	21 00
1 x 8-in. x 9 to 16 ft.	21 00
1 x 10 and 12 in. x 9 to 16 ft.	22 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	21 00
1-in. No. 2, 6-ft. to 16-ft.	17 00
2 x 4 to 12, 10 and 16 ft.	21 50
2 x 4 to 12-in., 12 and 14 ft. ..	21 50
2 x 4 to 12-in., 18 ft.	24 00
2 x 4 to 12-in., 20 ft.	26 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 24 ft.	28 00
2 x 4 to 12-in., 22 ft.	26 00
2 x 4 to 12 in., 18 ft.	24 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	17 00
Clear in B. C. cedar, kiln dried.	50 00

Douglas Fir	
Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12 x16, 16x16, 16x18, 18x18, 20x 20, up to 32 ft.	33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.	33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	34 00
10x20, up to 32 ft.	34 50
6x18, 8x18, up to 32 ft.	35 00
6x20, 8x20, up to 32 ft.	36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 to 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath..	5 00
1½-in. No. 2 4-ft. lath	4 75
1½-in. 32-in. pine	2 65
1½-in. No. 1 4-ft. hemlock lath	4 00
1½-in. mill run hemlock lath	3 75
XX B. C. cedar shingles	2 35
XXX 6 butts to 2-in.	3 05
XXXX 6 to 23-16-in.	3 25
XXXXX	3 55

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00	
Ash, white, No. 1 common	45 00	
Ash, brown, 1sts and 2nds, 4/4	50 00	
Ash, brown, common and better	39 00	
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00	
Birch, 1sts and 2nds, 4/4	39 00	
Birch, No. 1, com. and bet., 4/4	33 00	
Birch, 1sts and 2nds, 6/4 and 8/4	42 00	
Birch, 1sts and 2nds, 10/4 and 12/4..	45 00	
Birch, 1sts and 2nds, 16/4	50 00	
Basswood, 1sts and 2nds, 4/4	40 00	
Basswood, No. 1 com. and bet., 4/4.	35 00	
Basswood, No. 2 and 3, common	18 50	
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00	
Basswood, 6/4 and 8/4, com. and bet.	38 00	
Basswood, 4/4, No. 2 com. and bet.	32 00	
Soft elm, 1sts and 2nds, 4/4	40 00	
Soft elm, No. 1 com. and bet., 4/4 ..	34 00	
Soft elm, No. 2 and 3, common	17 50	
Soft elm, 6/4 and 8/4, 1 and 2	42 00	
Rock elm, 1sts and 2nds, 6/4 x 8/4..	55 00	
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00	
Soft maple, 1sts and 2nds, 4/4	33 00	
Soft maple, com. and bet., 4/4	28 00	
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00	
Hard maple, 1sts and 2nds, 4/4	37 00	
Hard maple, common and better, 4/4.	30 00	
Hard maple, 12/4, & 16/4, 1sts and 2nds.	46 00	
Red oak, plain 1st and 2nds, 4/4 ...	59 00	
Red oak, plain 1sts and 2nds, 6/4 & 8/4	65 00	
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00	
White oak, plain, 1st and 2nds, 4/4.	60 00	
White oak, plain, 1sts and 2nds, 1½ and 2-in.	65 00	
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00	
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00	
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00	
White oak, ¼ cut No. 1 common ..	55 00	
Hickory, 1sts and 2nds, 4/4	70 00	
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00	

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	**$52 00**	**54 00**
1¼-in. & 1½-in. x 8-in. & up	**55 00**	**58 00**
2-in. x 7-in. and up 58 00		**62 00**
No. 2 cuts 2 x 8-in. & up .. 40 00		42 00
Pine good strips:		
1-in. 38 00		40 00
1¼-in. and 1½-in. 50 00		52 00
2-in. **52 00**		**55 00**
Pine good shorts:		
1-in. x 7-in. and up 40 00		42 00
1-in. x 4-in. to 6-in. 30 00		33 00
1¼-in. and 1½-in. **50 00**		**54 00**
2-in. 52 00		**54 00**
7-in. to 9-in. A sidings 25 00		**27 00**
Pine, No. 1 dressing sidings .. 30 00		**33 00**
Pine, No. 1 dressing strips .. 29 00		**30 00**
Pine, No. 1 dressing shorts .. 22 00		24 00
Pine, 1-in. x 4-in. s.c. strips .. 22 00		**23 00**
Pine, 1-in. x 5-in. s.c. strips .. 24 00		**25 00**
Pine, 1-in. x 6-in. s.c. strips .. 23 00		**24 00**
Pine, 1-in. x 7-in. s.c. strips .. 23 00		**24 00**
Pine, 8 s.c., 12 ft. to 16 ft. ... 25 00		26 00
Pine, 1-in. x 10-in. M.R. 27 00		**28 00**
Pine, s.c. sidings, 1½ and 2-in. 28 00		**30 00**
Pine, s.c. strips 1-in. 21 00		**23 00**
1¼, 1½ and 2-in. 24 00		**26 00**
Pine, s.c. shorts, 1 x 4 to 6 in.		**20 00**
Pine, s.c. and bet., shorts, 1 x 5 20 00		21 00
Pine, s.c. and bet., shorts, 1 x 6 20 00		21 00
Pine, s.c. shorts, 6'-11' 1"x10" 23 00		24 00
Pine, box boards:.		
1" x 4" and up, 6'-11' 17 50		18 00
1"x 8" to 6", 12'-16' 19 00		**20 00**
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up 17 00		19 00
Pine mill culls stock 1 x 12 ... 21 00		**22 00**
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft. 17 00		18 00
O. culls r & w p 15 00		17 00
Red pine, log run:		
mill culls out, 1-in. 18 00		20 00
mill culls out, 1¼-in. 19 00		21 00
mill culls out, 1½-in. 19 00		21 00
mill culls out, 2-in. 22 00		24 00
Mill culls, white pine, 1"x 7" and up 20 00		21 00
Mill run Spruce:		
1"x4" and up, 6'-11' 17 00		18 00
1"x4" and up, 12'-16' 18 00		20 00
1"x9"-10" and up, 12'-16' .. 22 00		24 00
1¼"x7" 8-9" and up, 12'-16' 22 00		**24 00**
1¼"x10" and up, 12'-16' ... 22 00		**24 00**
1½" & 2"x12" and up, 12'-16' 25 00		**26 00**
Spruce 1-in. clear (fine dressing and B) **25 00**		**27 00**
Hemlock 1-in. cull 13 00		15 00
Hemlock 1-in. log run 17 00		20 00
Hemlock 2x4, 6, 8, 10, 12/16'. 19 00		23 00
Tamarac 19 00		20 00
Basswood log run, dead culls out 22 00		24 00
Basswood log run mill culls out 23 00		26 00
Birch log run 19 00		22 00
Soft elm, common and better, 1, 1½, 2-in. 20 00		24 00
Ash, black, log run 25 00		28 00
1 x 10 No. 1 barn 33 00		36 00
1 x 10 No. 2 barn 23 00		26 00
1 x 8 and 9 No. 2 barn 22 00		23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft. 4 25		4 50
No. 2 White Pine 3 80		3 95
Mill run white pine 4 00		4 25
Spruce, mill run 1½-in. 3 25		3 50
Red pine mill run 3 60		3 70
Hemlock, mill run 2 75		3 00
32-in. lath 2 00		2 00
Pine Shingles		
xxxx, 18-in. 3 00		3 50
Clear butt 18-in. 2 50		3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in. 3 75		4 25
Clear butt, 18-in. 3 00		3 50
18-in. xx		2 00
Spruce logs (pulp) 13 00		15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	65	70
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	75
By the dram, according to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$ 21 00	22 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. $54 00	
1 in., 8 in. and up wide 62 00	
1¼ and 1½ in. and up wide 65 00	
2 in. and up wide 70 00	

Cuts and Better

4/4 x 8 and up No. 1 and better 55 00	
6/4 x 8 and up No. 1 and better 65 00	
8/4 x 8 and up No. 1 and better 65 00	
6/4 x 6 and up No. 2 and better 52 00	
8/4 x 6 and up No. 2 and better 54 00	
6/4 x 6 and up No. 3 and better 46 00	
8/4 x 6 and up No. 3 and better 50 00	

No. 1 Cuts

1 in., 8 in. and up wide	**42 00**
1¼ in., 8-in. and up wide	**55 00**
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide....	**75 00**
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	**31 00**
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide 62 00	**65 00**

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	**34 00**
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00	25 00
No. 2, 1¼, 1½, 2-in.	19 00	23 00

Mill Culls

Mill run culls, 1-in.		19 00
1, 1¼, 1½ and 2-in.		20 00
No. 2	17 00	18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch $18 50	
6 inch 21 00	
8 inch 23 00	
10 inch 23 00	
12 inch 23 00	

Flooring

4 or 6 inch No. 1 ....$33 00	
4 or 6 inch No. 2 .... 31 00	
4 or 6 inch No. 3 .... 24 50	

Shiplap—Finished

4 inch $20 00	
6 inch 22 50	
8, 10, 12 inch 23 50	

Siding

6 inch No. 1 ....$33 00	
6 inch No. 2 .... 31 00	
6 inch No. 3 .... 24 50	

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft. 14 and 16 ft.	
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft. ...		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft. $21 50	
4, 2 x 6, 4 x 8, 18 to 32 ft. 25 50	
2 x 10, 2 x 12, 8 to 16 ft. 22 50	
18, 20, 22 ft. 26 50	
24, 26, 28, 30, 32 .... 28 50	
2 x 14 up to 32 ft. 29 50	
3 x 4 to 4 x 12, 8 to 16 ft. 24 00	
3 x 4 to 4 x 12, 18 to 32 ft. 29 00	
6 x 6 to 6 x 12, up to 32 ft. 24 00	

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch $31 00	
No. 2 common pine, 10 inch 25 00	
No. 3 common pine, mixed widths .. 20 00	
No. 4 common pine, mixed widths .. 14 50	
No. 5 common pine, mixed widths .. 10 00	

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4 ....$94 00	
Uppers 5/4 to 8/4 .... 92 00	
Uppers 10/4 to 12/4 .... 97 00	
Selects 4/4 .... 84 00	
Selects 5/4 to 8/4 .... 82 00	
Selects 10/4 to 12/4 .... 92 00	
Fine common 4/4 .... 61 00	
Fine common 5/4 .... 65 00	
Fine common 6/4 .... 65 00	
Fine common 8/4 .... 67 00	
No. 1 Cuts 4/4 .... 51 00	
No. 1 Cuts 5/4 .... 57 00	
No. 1 Cuts 6/4 .... 59 00	
No. 1 Cuts 8/4 .... 61 00	
No. 2 Cuts 4/4 .... 52 00	
No. 2 Cuts 5/4 .... 43 00	
No. 2 Cuts 6/4 .... 45 00	
No. 2 Cuts 8/4 .... 50 00	
No. 3 Cuts 5/4 .... 33 00	
No. 3 Cuts 6/4 .... 34 00	
No. 3 Cuts 8/4 .... 36 00	
Dressing 5/4 .... 46 00	
Dressing 5/4 x 10 .... 51 00	
Dressing 5/4 x 12 .... 52 00	
No. 1 Moulding 5/4 .... 38 00	
No. 1 Moulding 6/4 .... 38 00	
No. 1 Moulding 8/4 .... 38 00	

(Continued on page 70)

The Shaw Motor Headworks

The Modern Method of Towing Logs

Read Mr. D. M. Prices' letter reproduced below, and do not delay asking us for full information. Orders for spring delivery should be in at once.

Fort Frances, Ont.,
June 29th, 1914.

Russel Brothers,
Fort Frances, Ont.

Gentlemen:

Answering your enquiry as to the service we are getting from your Shaw Motor-Headworks.

I have inspected this boat at work, and have also taken this matter up with our boom superintendent and we have yet to find anything in this line that the Shaw Motor-Headworks is not adapted for.

Your advertised towing capacity of three million feet of logs is well within its limit, as we find that it will tow this quantity as fast as logs will stay in a boom.

We intend using these boats in place of the horse headworks or capstans for breaking rollways and towing, as the reduced cost of operation and the time saved will more than repay us for the outlay.

We will be pleased to have you refer any prospective purchasers to us as we are entirely satisfied with this machine.

Yours very truly,
Shevlin-Clarke Company, Limited,
By D. M. Price,
Superintendent Logging Department.

You should do your towing as cheaply as your competitor. But you can't—without a

SHAW MOTOR-HEADWORKS

Manufactured by

Russel Brothers

Fort Frances, Ont.

Next issue will show photograph of machinery and crew.

Greater Capacity
Less Power
Material Saving in Expense

May be accomplished by the use of

Sturtevant

(REG. CAN. PAT. OFF.)

Slow Speed Low Pressure Planing Mill Exhausters

(PATENTED)

In a medium sized plant, the power waste due to improperly designed and installed collecting system involving the use of high speed high pressure fans, amounts to many hundred dollars yearly. This amount could be added to the profits by substituting STURTEVANT Slow Speed Low Power Fans and by simple changes in pipe and collector.

These fans are adapted to the handling of many kinds of dust and refuse for either long or short distances.

Running at slow speed, they accomplish great savings in power over a high speed fan of the same size.

A New England manufacturer states that he saved the price of his *Sturtevant* Slow Speed Fan in two months through its more efficient operation.

Some of the largest lumber companies in the country are replacing their old systems with the STURTEVANT Slow Speed Fans.

Isn't this fan worthy of your investigation?

Ask for catalog No. 1850

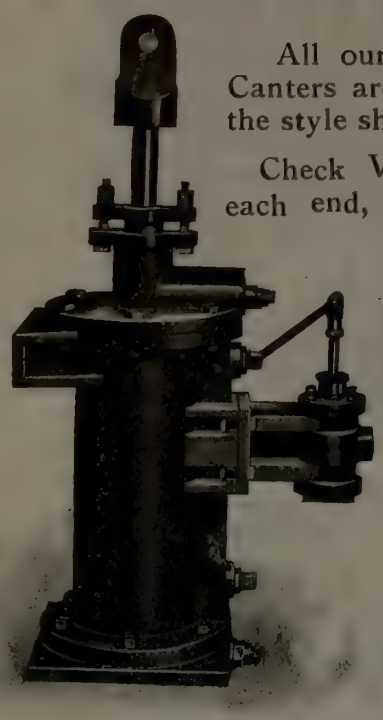
B. F. Sturtevant Company

of Canada, Limited

GALT, ONT.

Montreal Toronto Winnipeg Vancouver

Log-Handling Machinery



All our Loaders, Kickers and Canters are made with cylinders of the style shown in the cut.

Check Valves are provided in each end, and all piping between valve and cylinder is eliminated. These cylinders are extra heavy and very durable, and are absolutely guaranteed by us.

We carry in stock at all times a complete line of Log Deck Machinery—so we can always serve you promptly.

Shall we send our Catalogue?

William Hamilton Company

Peterborough - Ontario

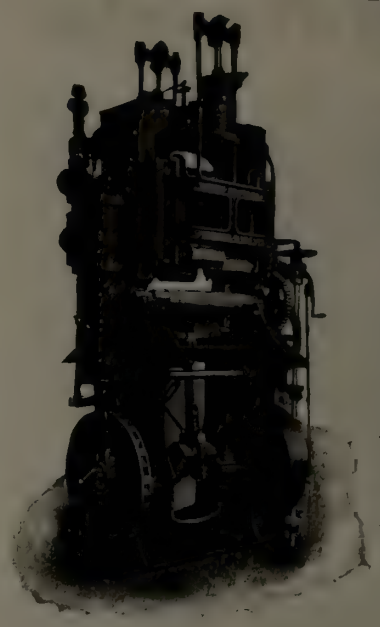
WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
Silo Stock **Door Stock** **Box Lumber**
Boards

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

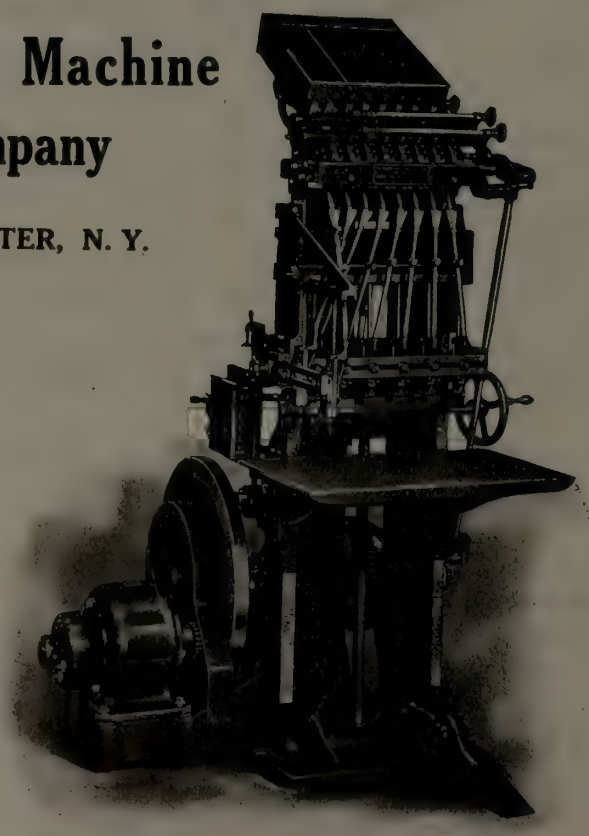
Wickes Brothers

410 White Building - - SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N. Y.

The Clyde System in Logging

aims to cut out as much dead time (time used in moving and getting ready to work) as possible and have the machines put in practically the full day skidding & loading logs

We will gladly show you how it works out

CLYDE IRON WORKS

Manufacturers of Machines for EVERY Logging Operation

CLYDE DULUTH, U. S. A. CLYDE

"Great Port of the Northwest"

THE PETER GERLACH Co

MANUFACTURERS AND BUILDERS OF

SAWS
CIRCULAR AND CYLINDER

MACHINERY
STAVE HEADING AND BARREL

TOOLS
SAW AND LOGGING

For the Manufacture of the Following

STAVES	HEADING
BARRELS	KEGS
COOPERAGE	WOODEN WARE
HOOPS	HANDLES
PAILS	TUBS
Cchurns	FREEZERS
CANDY PAILS	FISH KITS
BOX BOARDS	BOTTOMS
CHAIR STOCK	SHINGLES
CLOTHES PINS	LUMBER

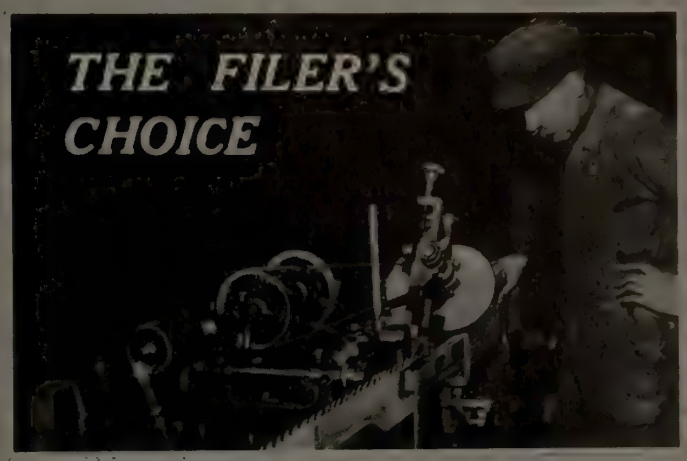
COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
THE PETER GERLACH CO. CLEVELAND. O. U.S.A.

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.



The filer's choice of saw gumming wheels is the wheel that cuts fast, free and cool—the wheel that will hold its shape—show long life—and cut quietly, quickly, easily—without case-hardening the saw or drawing the temper. These are just the qualities he will find in

ALOXITE SAW GUMMING WHEELS

And they are made right—right sizes, shapes, grits, and grades.

Good saw gummers are as necessary in your mill as good saws.

⚜

THE CARBORUNDUM COMPANY
NIAGARA FALLS, N. Y.

NEW YORK CHICAGO BOSTON
PHILADELPHIA PITTSBURGH CINCINNATI
CLEVELAND MILWAUKEE GRAND RAPIDS
LONDON, ENG.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	33 - 35	23 - 25	17 - 19
5/4 to 8/4	36 - 38	25 - 27	17 - 19
10/4 to 16/4	40 - 42	30 - 32	22 - 24

RED BIRCH			
4/4	44 - 46	30 - 32	18 - 20
5/4 to 8/4	46 - 48	32 - 34	20 - 22

SAP BIRCH			
4/4	38 - 40	26 - 28	20 - 22
5/4 and up	40 - 42	28 - 30	20 - 22

SOFT ELM			
4/4	38 - 40	27 - 29	18 - 20
5, 6 & 8/4	40 - 42	29 - 31	20 - 22

BASSWOOD			
4/4	36 - 38	27 - 29	19 - 21
Thicker	38 - 40	29 - 31	21 - 23

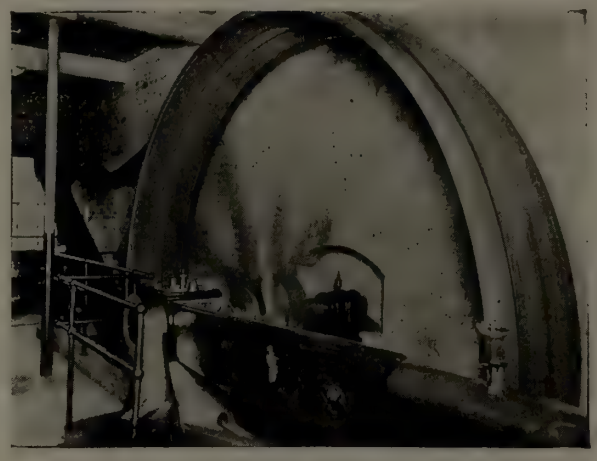
PLAIN OAK			
4/4	54 - 56	35 - 37	23 - 25
5/4 to 8/4	56 - 58	37 - 39	25 - 27

ASH, WHITE AND BROWN			
4/4	48 - 50	30 - 32	21 - 23
5/4 to 8/4	55 - 57	32 - 34	22 - 24
10/4 and up	64 - 66	44 - 46	24 - 26

BOSTON, MASS.		
White pine uppers, 1 to 2 in...	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00

Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 0	27 00
Spruce, 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce, 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1⅝-in. spruce laths	4 15	4 25
1½-in. spruce lath	3 75	3 80

New Brunswick Cedar Shingles		
Extras		3 50
Clears		2 90
Second clears		2 75
Clear whites		2 45
Extra 1s (Clear whites out)		1 50
Extra 1s (Clear whites in)		1 0½
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40	3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Cedar Perfection, 5 butts to 2¼		4 80
Washington 16-in. 5 butts to 2-in. extra red clear		3 35



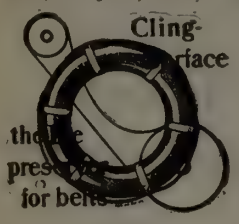
1628 pounds Constant Pull Without Slip—Only Cling-Surface Treatment Permits This

The belt, 18-in. double leather, shown, runs at 3,036 feet per minute and carries 150 h.p. from a 14 ft. driver to a 41-in. wood pulley. Distance between centers 23 ft. The picture was taken when pulling full load. There was no sign of slipping. Pretty good with 3 ft. 4½ in. slack, isn't it? But slackness without slip isn't the only good resulting from Cling-Surface treatment. The owner says:

"We have been using Cling-Surface for eight years with most satisfactory results on all sizes of belts and kinds of drives. When judiciously used it lessens tensions and increases efficiency as well as period of usefulness." H. H. Reid, Secretary, T. S. Simms & Co., Ltd., St. John, N.B., Canada.

If you are not treating your belts with Cling-Surface, you do them, the bearings, and yourself an injustice. Not only should the belt tension be reduced, the efficiency increased and the life prolonged, but the journal friction ought to be reduced, the driven machinery made to run more smoothly and quality of work improved. Cling-Surface accomplishes all these essentials and makes the belts perfectly dependable. It should be used on every belt without waiting for slip or other troubles.

Treat just one of your belts with Cling-Surface—note the improvement—we won't have to tell you to treat the rest. Cling-Surface is a money saver. All users know this just the same as the people mentioned above who have used it for eight years. Get our literature and give Cling-Surface a trial. Our quotations are f.o.b. Toronto.



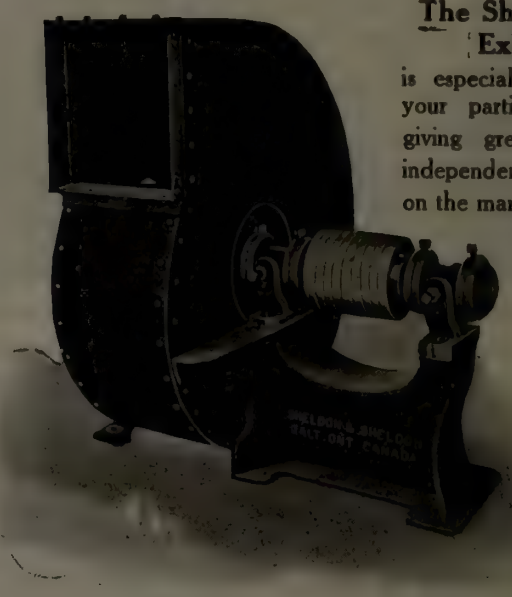
Cling-Surface Co

1021 Niagara St Buffalo N Y

New York Boston Chicago Denver
Atlanta Memphis Toronto Etc 71-B

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

is especially designed to suit your particular requirements, giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

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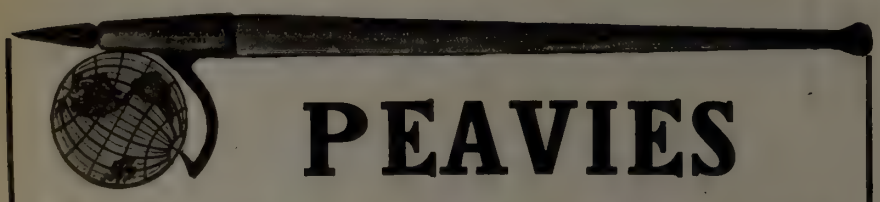
Messrs. Ross & Greig, 412 St. James St. Montreal, Que. Messrs. Walker's Limited, 259-261 Stanley St. Winnipeg, Man.
Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.
Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.



PEAVIES

Cant Hooks, Boom Chains, Timber Dogs

It is time to think about your logging equipment for the ensuing season. Let us figure on your requirements for Peavies, Cant Hooks, Timber Dogs, Boom Chains, and Shackles, Mill Chains, Forged Steel, Log Stamping, Hammers, etc.

Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

Write us for particulars and prices

ARGALL BROTHERS Three Rivers, Quebec

WIRE and WIRE PRODUCTS for

Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, **Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.**

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooperage.

The Laidlaw Bale-Tie Co., Limited

Winnipeg Harry F. Moulden & Son — HAMILTON, ONTARIO — Vancouver George W. Laidlaw

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries.

Write for Prices and Information

E. LEONARD & SONS,

LONDON, CANADA **LIMITED**

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.

Locomotive Boiler on Skids

Contractors Lumbermen River Drivers

"Penetang" Sole Leather

None better.
It holds the calks, resists water and wears like iron.

Cut Half Soles

Cut from "Penetang" Sole Leather.
All grades and weights.
Send for price list.

Harness Leather

Both "Union" and "Oak."
Unexcelled tannage.

We have a line of special heavy Harness Leather for Lumbering.

The Breithaupt Leather Co.

Limited

Head Offices — BERLIN, ONT.

MORRIS Q. E. F. RUNWAYS WILL CARRY ANYTHING, AND GO 'MOST ANY OLD PLACE. TRY!

THE HERBERT MORRIS CRANE & HOIST COMPANY, LIMITED,

EMPRESS WORKS, PETER STREET. TORONTO

Established 1874

We specialize in HEAVY HORSES

We always have a Large Stock on hand

Oldest and Largest Horse Dealers in Canada

Good horses are hard to find, so deal with an old and reputable firm. Your interests are ours.

"LET US KNOW YOUR WANTS"

J. W. JACOBS, 29 Hermine Street, Montreal

Time is Money

The rapid cutting File is the economical File

Files Branded

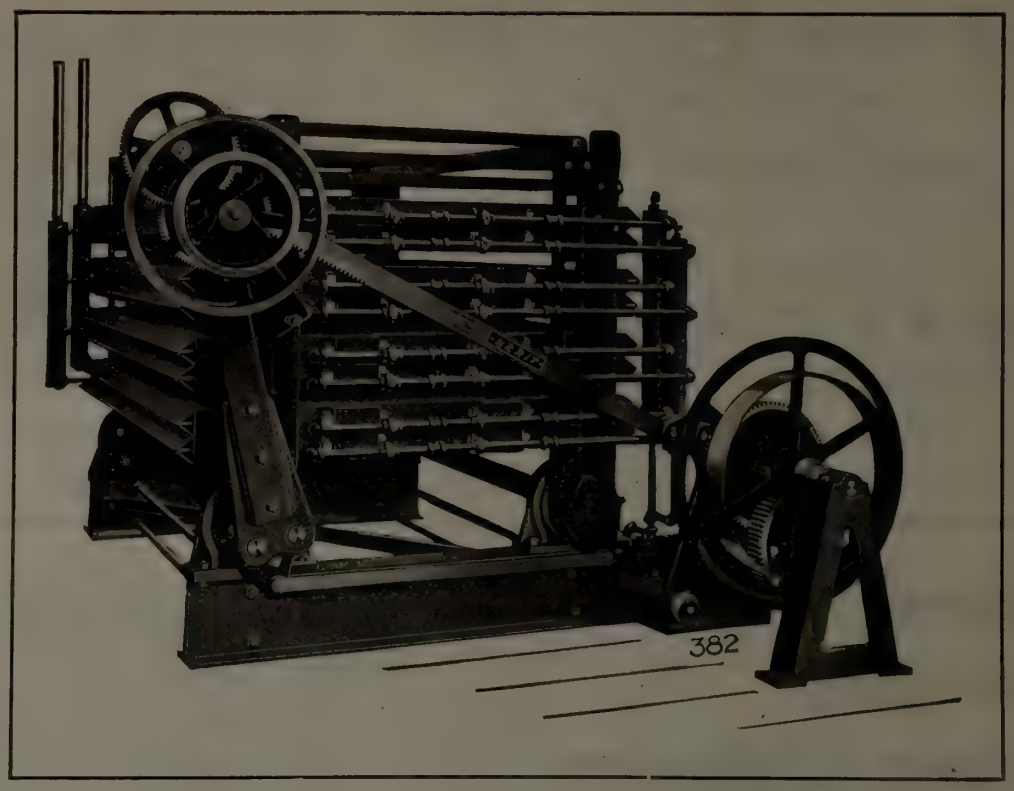
American - Arcade - Eagle - Great Western

Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.



The "Merit" Balanced Plate Veneer Drier
for Crossbanding and Face Stock

THERE is no drier on the market that can do the work performed by this machine as good, as fast or as cheap as The "Merit" Common Sense Drier.

No checking, no leaky pipes or packings—no flexible joints—Everything open, accessible and controllable.

Let us present our guarantee to cover drying of green veneer right from the log or for redrying of all kinds of stock in furniture, piano, door and panel factories.

Prospective buyers of Veneer Machinery are invited to visit our plant which is just an hour's trolley ride from Niagara Falls.

Merritt Manufacturing Company
Lockport, N.Y.

THE WATEROUS NEW CHAMPION EDGER

built with 40-in., 48-in. and 56-in. working opening, to carry as many as four movable and two stationary saws, will take all sized cants up to 6 in. The saw mandrel is 3⅞ in. diameter, saw collar 6 in., and saws 22 in. in diameter. This leaves 8 in. of saw above the collar—plenty of margin to allow saw to clear itself in a 6-in. cant.

Saws are shifted by straight line levers; they can be approached within 2⅞ in. of the stationary saws, and will approach each other within the same distance. To space them absolutely accurately, a steel setting gauge operated by foot tread from the front of the machine, drops over the guides and automatically crowds them into correct position and holds them there without shift. **This is a Waterous feature.**

Four chain driven feed rolls and four heavy press rolls handle the stock safely and easily. All boxes are fitted to require little attention. The feed rolls and mandrel drive is simple and positive and requires little power. The edger is built compact and strong of selected materials, and tested before leaving the shop. We stand behind every machine we turn out.

A dozen other points which make the New Champion Edger different and better are well illustrated and described in the new bulletin No. 113, which has just come in from the printers. Let us send it to you.

The Waterous Engine Works Co., Ltd.

BRANTFORD . CANADA

H. B. Gilmour, Vancouver, B. C. Winnipeg, Man.

The best Edger for medium capacity mills is one that will handle all medium sized cants that come through, that will operate with little power, that will take up a minimum of floor space, and that is built strong enough to handle the work fast and continuously. At the same time the Edger should be safe and easy to operate, simple to adjust and convenient for overhauling.

This Edger Fills the Bill

Slow Speed — Low Power Exhaust Systems

For removing Shavings, Sawdust, Emery Dust, Lint, Smoke and Odors

Is your Blower System satisfactory?——If not, we can make it so

What We Have Done For Others, We Can Do For You

Our System recently Installed in Largest Box Shook Factory in Ontario.

TORONTO BLOWER CO., Toronto, Ont.

Our STANDARD Wheel Sett Equipment, showing our Babbitted Oil Tray Axle Boxing Construction.

GLENGARRY

Our Roller Bearing Journal Boxings cut labor and hauling in half. Very little extra cost.

Lumber Truck Wheels and Axles

Our large experience with railway contractors wheels and axles places us in a first-class position to supply all styles and sizes of wheels and axles for lumber trucks. In addition we stand ready to help you design your trucks if necessary. Turntables to mount on trucks enable you to handle sawn lumber in the yards to great advantage. These are easily applied and very little extra cost is added. Any enquiries promptly looked after. Let us have your requirements before us. Prices and terms attractive.

Get our prices on Sheet Steel Smoke Stacks, Chutes, Bins, etc.

The Schell Foundry & Machine Company, Ltd.

Alexandria ∴ Ontario

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made.

Clarke's A.R.C. Clothing

For

Lumbermen

Mackinaw Pants

The materials in these pants are the best that money can buy. The workmanship is on a par with our other goods.

The A. R. C. Brand of clothing contains every garment necessary for the complete outfitting of the lumberman for winter work in the woods.

Illustrated are a few of the A. R. C. garments. They are roomy in design, perfect in workmanship and are made of the best materials.

Our illustrated catalogue contains full information about the A.R.C. line.

Write us today.

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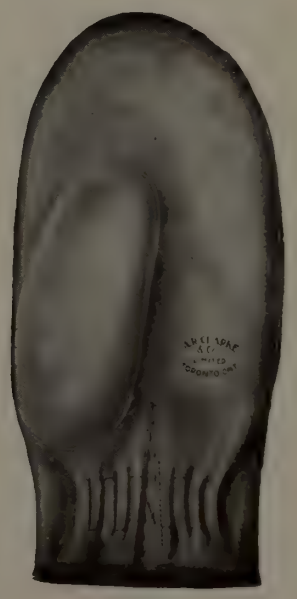
Well tailored from mackinaw cloth and suitable for street wear.

Plymouth Glove

The best made for all kinds of hard wear. Peccary hog leather is a favorite with lumbermen. The toughest and best wearing glove it is possible to make.

Bullhide Moccasins

Are steadily gaining in favor owing to their warmth and wear resisting qualites.



Pullover Mitt

Made in burro, sheepskin, horsehide and peccary hog leathers. Specially adapted for lumbermen, rivermen and miners.

A. R. Clarke & Co.

Limited

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Bain Sleighs for Logging Operations

Famous for their great Capacity and Light Draft

Logging is a severe test of a sleigh.

The best is none too good, even though you may pay considerably more than for one which possibly may appear to be just as good.

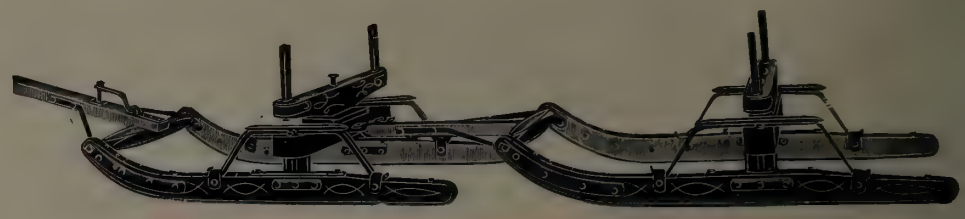
It is only by actual test—the test of time and hard usage—that the difference is apparent, and the increased first cost is forgotten. **The quality is remembered long after the price is forgotten.**

The cross chain couplings allow great flexibility and the hind bob follows in the tracks of the front when turning. Some prefer the short reach for well broken roads, as a sleigh so fitted can be backed same as a wagon.

Swing bunks are an advantage in the bush, as they can be swung parallel with the runners when driving without a load.

Any of these sleighs except the heavy sloop can be fitted with 38, 40 or 42 inch bolsters for general work.

Our new catalogue No. 30 tells all about it and is yours for the asking.



Bain Single Beam Manitoba Bob Sleigh

Steel Shoes; Swing Bunks or Bolsters; Short Reach Coupling; 3 ft. Track. Clearance under Beam 9½ inches.

The Bain North Shore Sloop Sleigh

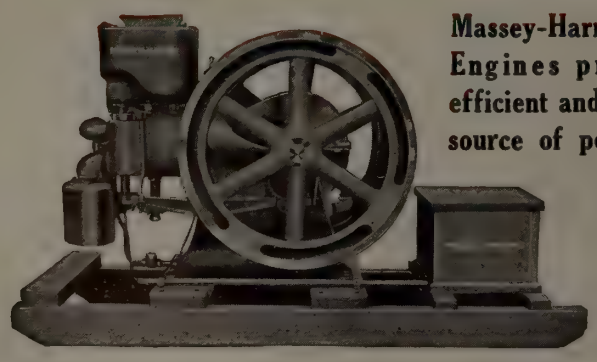
Steel Shoes; Cross Chain Coupling. 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 7 inches.

The Bain Heavy Sloop Sleigh

Steel Shoes; Short Reach or Cross Chain Coupling; Furnished without Bolsters but with king bolts front and rear; 3 ft. 4 in., 4 ft. 4 in. or 4 ft. 8 in. Track. Clearance under Beam 7 inches.

The Bain Double Beam Manitoba Sleigh

Steel Shoes; Short Reach Coupling; 3 ft. track. Clearance under Beam 9½ inches.



Massey-Harris Gasoline Engines provide an efficient and economical source of power. 1½ to 20 H. P. Stationary, Portable or Semi-Portable.

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Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
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are rapid cutters made by

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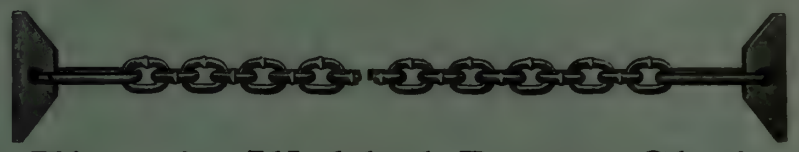

Electric-Welded Boom Chain

25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Reduce Your Fire Risk by Using Fairbanks-Morse Internal Starter Motors.

No complicated starting apparatus is required as they are controlled by simply closing or opening a line switch. The varying resistance necessary for starting is secured by varying the pressure on a number of carbon discs which form one of the three resistance units. There being no moving contacts there is no chance of sparking and fire risk is practically eliminated as far as your motor is concerned.

The gradually increasing pressure exerted by centrifugal force on the carbon discs gives a very smoothly starting motor.

A simple screw adjustment of the resistance units allows the starting torque to be changed from normal to 200 per cent. full-load running torque if required with a starting current of about one-half that required by the ordinary squirrel cage motor.

Send for Bulletin No. 210.

The

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STOCKS 2" TO 24" WIDE

THE BELT YOU WILL EVENTUALLY USE

BECAUSE—It has no plys to open up and fall apart.
BECAUSE—It withstands heat, cold, damp, wet and chemical fumes.
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BECAUSE—Of its great strength, almost twice that of oak-tanned double leather.

Sole Makers

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Stocks carried by The A. R. Williams Machinery Co., Limited,
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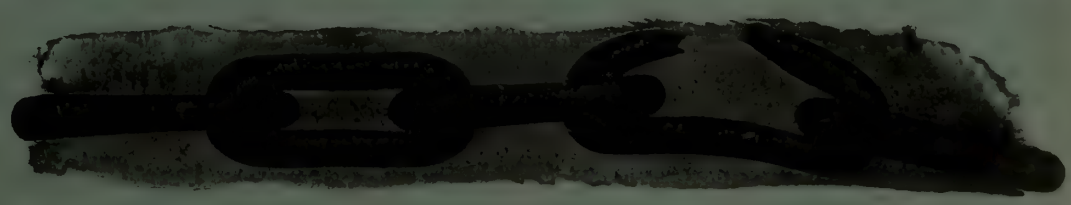
Nothing but the best satisfies us, what about you? Try us when next in the market for a new pump.

The Smart-Turner Machine Co., Limited

Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

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Pine and Spruce Lumber

IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 “	1 x 10″	“
50 “	1 x 7″ and up	“
10 “	1¼ x 7″ and up	“
10 “	1½ x 7″ and up	“
2 “	1½ x 12″	“
5 “	3 x 6″ and up	“

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

Clear and No. 1 Spruce

10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 “	1 x 7″	“
4 “	1 x 8″	“
5 “	1¼ x 8″	“
3 “	3 x 10″ and up (mostly 11″)	“

Also “BEAVER BRAND” White Cedar Shingles—full count.
Shipment by rail or water.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada

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Limited

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Manufacturers of

Lumber, Lath and Dimension Timber

Planing Mill

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Humboldt Redwood

Humboldt Redwood is cut from the forest of North California. Its qualities suit it to almost every purpose for which lumber may be used. It will not check, is fire repelling, beautifully figured and always clear, free from pitch, easily worked, will not shrink, takes finish equal to mahogany and is in every other way a most desirable wood for all purposes.

CALIFORNIA CLSCO REDWOOD

Its Uses

Among the uses of Humboldt Redwood we mention: Sash, doors, and trim, boats, furniture, toys, pattern lumber, outside building trim, car siding, cooperage, hot bed stock, refrigerators. tanks and silos, buildings, exposed beams, clap boards, lattice, screen doors and windows, theatrical scenery, incubator and beehive stock, turned work and a variety of other uses.

Write us for prices and literature.

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Winter Sawed Hardwoods Ready for Shipment

4/4 Log run Maple	350,000 ft.	6/4 No. 1 C.&B. Maple	60,000 ft.
5/4 No. 1 C.&B. "	40,000 ft.	8/4 No. 1 C.&B. "	200,000 ft.
4/4 Log run Beech	250,000 ft.		
6/4 "	15,000 ft.		

We have recently installed a complete planing mill and are now in a position to do dressing of any kind on short notice.

Spruce and Hemlock Timbers a Specialty

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

Going to War

on the following stocks:

LONGFORD

150,000 ft.	1″ No. 2 Hemlock
250,000 ft.	2″ No. 2 Hemlock
1,000,000 ft.	2 x 4 to 2 x 12 No. 1 Hemlock

SOUTH RIVER

300,000 ft.	1″ Spruce
350,000 ft.	2 x 4 Spruce

CACHE BAY

400,000 ft.	1″ White Pine Culls
400,000 ft.	1″ C & Btr. White Pine
1,000,000 ft.	1″ and 2″ Red Pine

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Hamilton, Ont.

No Order Too Large

Hocken can deliver the goods

HEMLOCK, Pine, Hardwoods

We are able to supply special bills in Pine and Hemlock

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Otter Lake Station, Ontario

TRADE T MARK (REGISTERED)

DRY WHITE PINE

Low price for immediate shipment

2 x 7	12/16	6/4 x 8/10	12/16
2 x 8	12/16	3 x 7	12/16
2 x 9	12/16	3 x 8	12/16
6/4 x 8	12/16	3 x 9	12/16

Watson & Todd, Ltd., Ottawa, Ont.

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Cedar Poles and Posts

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Selling agents for Fraser & Co., Manufacturers

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Can Dress and Resaw as required at Spruce Mills.

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Bromley can submit attractive prices.

Real choice red and white pine stock.

Odd lots go at bargain prices.

Mississaga reserve timber—my stock.

Largest orders filled promptly.

Every board carefully graded.

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What about a mixed car of mouldings, turnings, doors with shingles and sidings.

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It will pay you better than making them yourself. Lumber of all kinds.

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DRY—1″ and 5/4″ FINE DRESSING to CLEAR SPRUCE.

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Deal with me and you will be satisfied every time.

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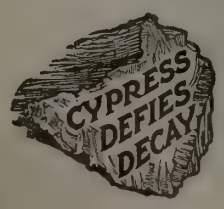
Our Mills Produce and We Market as Much

GENUINE LOUISIANA RED CYPRESS

As All Other Concerns Combined



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The rates are most reasonable, write us.

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All grades and sizes.

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Planing of all kinds done by carload. Railroad Switch in connection with mill.
All classes of building material, lime and cement for sale.
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2,500 "	16/4	" " "
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22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8 to 16"—10 to 16 ft.	1st and 2nd White Ash
13,000 "	2 x 6 and up—10 to 16 ft.	No. 1 C. & B. White Ash

Hardwoods Thoroughly Dry
Your Inquiries Will Have Prompt Attention

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Gulf Cypress
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HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

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California White Pine
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Best Stock for Factory and Pattern Lumber

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Why demand the highest possible efficiency in

SAWMILL MACHINERY

And remain satisfied on your drive with the

ANTIQUATED HORSE-HEADWORKS

A 20th Century Mill Demands a 20th Century Drive

The Shaw Motor Headworks is the only 20th Century method of towing logs. Try one and you will acknowledge this.

For full particulars write

RUSSEL BROTHERS
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Mills at Victoria Harbor, Ont.

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Highest Grade

Extra Clear XXX B. C. Red Cedar Shingles

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If you want quick delivery write, wire or telephone

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JOHN DONOGH & CO.

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Dry stock in all sizes. *Quick shipments.*

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Mixed Cars

Promptly Shipped

SEND US A LIST OF YOUR REQUIREMENTS AND WE WILL QUOTE AN ATTRACTIVE PRICE.

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We Specialize in

PILING

Always on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet.

Wanted 1 in. and 2 in. Hemlock and Spruce. 1 in. Cull Hardwood.

WANTED—Contractors to take out piles during the summer months

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Spruce, White Pine Strips and Mill Culls, Norway and Hemlock

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We Have for Immediate Shipment:—

300,000 1" No. 1 C. & B. Birch
60,000 2" No. 1 C. & B. Maple
60,000 2" No. 1 C. & B. Elm
100,000 1" Cull Elm
50,000 2" No. 1 C. & B. Birch
20,000 1" No. 1 C. & B. Maple
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This stock was cut early, is dry, and was taken from an exceptionally good run of logs. We are quoting attractive prices on this lumber for prompt shipment.

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Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

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Mills at Kearney, Ont.

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The Pacific Lumber Company

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For Immediate Shipment

75,000 ft. of 8/4 in. Basswood, No. 2 C. and B., winter sawn.

100,000 ft. of 4/4 in. Mill Run Basswood, dead culls out, winter sawn.

100,000 ft. of 4/4 in. Soft Elm, culls out. This Elm is the fuli run of the logs, no heavy having been cut out.

We have cars of Hardwood and Yellow Pine in transit from the South all the time. Write or phone us your requirements. We can ship mixed cars the day we receive your order.

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Lumber Lath Pulpwood

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Mills at:

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Hemlock Norway
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Prices Right

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And this section of the world the most attractive market.

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Lands, Lumber, Lath and Pulpwood
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Lumber and Pulpwood Mills, Jacksonboro, Ont.

We have the following on hand ready for shipment:

1 x 4 Merchantable Spruce.	1 x 12 Merchantable Spruce.
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Mills:—
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HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

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BARCLAY SHINGLE MILLS

LIMITED

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Mills at HANEY, B. C.

Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is positively right, and prices will please

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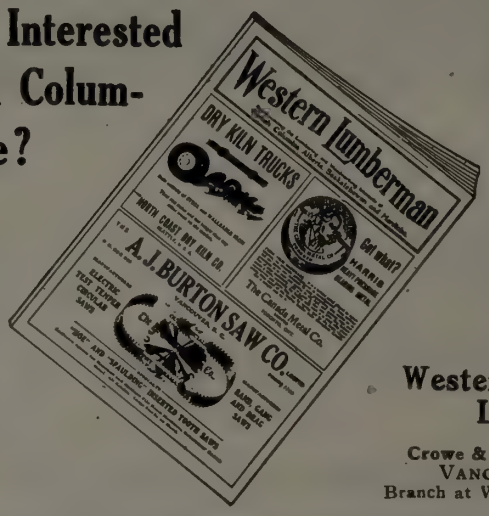
Mills at Craigs on the B.C.E.R.

Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

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Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

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MANUFACTURERS OF

British Columbia Red Cedar Exclusively

4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding.
8, 10 and 12 inch CLEAR CEDAR FINISH.
EXTRA XXX RED CEDAR SHINGLES.

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Lath, Boxes, Shooks, Wooden Pails

We can Dress, Match and Resaw. Order this way and save money.

"We aim to serve you with the best."

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"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips **Cedar Siding** **Shiplap**
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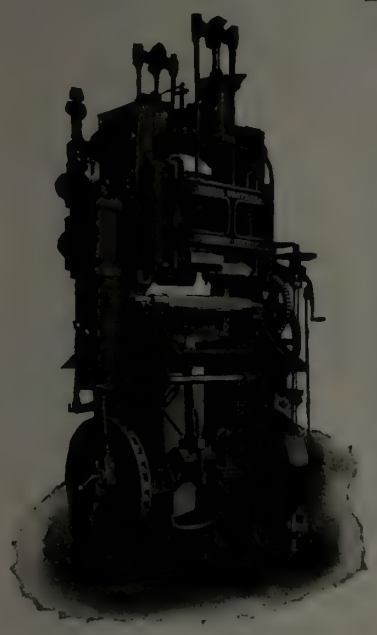
Boards

from cants and flitches, from either hard or soft woods.



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JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install ecomony by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

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FEED NATIONAL OATS—*There is a Reason*

National Oats

are good clean heavy western oats—carefully bagged and well sewn to meet the requirements of the

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If you have never tried them do it now—ask us for quotations, stating your requirements.

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"Everything in Lumber"

Large Stocks of Sized or Rough Hemlock and Yellow Pine

Peeled Cedar Fence Posts 5 in. and up, 8 ft., carried in stock at Detroit. Immediate Shipment.

Write for prices

Timber for R. R. Construction and Commercial Purposes, a Specialty.

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United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, **Cincinnati, Ohio.** *Write for prices.*

Service First

He profits most who serves best.

Satisfaction Guaranteed

Stearns Quality Stock

65 M. 1 x 6 in. and wider 1s and 2s End Dried White Basswood.
22 M. 1 x 6 to 8 in., 10 and 12 ft., firsts and seconds Basswood.
35 M. 1 x 7 and 8 in. firsts and seconds Basswood.
20 M. 1 x 4 in. No. 1 Common Basswood (clear all in).
25 M. 1 x 5 in. No. 1 Common Basswood (clear all in).
30 M. 1 x 5 and 6 in. No. 1 Common Basswood.
75 M. 1 x 7 in. and wider No. 1 Common Basswood.
90 M. 1 x 6 in. and wider No. 1 Common Beech.
50 M. 5/8 No. 2 Common and Better Beech.
70 M. 4/4 No. 2 Common and Better Beech.
95 M. 6/4 No. 2 Common and Better Beech.
80 M. 8/4 No. 2 Common and Better Beech.
60 M. 1 x 6 in. and wider No. 1 Common Birch (Red all in).
45 M. 1 x 6 in. and wider firsts and seconds Soft Gray Elm.
68 M. 1 x 6 in. and wider No. 1 Common Soft Gray Elm.
79 M. 1 x 6 in. and wider No. 2 Common Soft Gray Elm.
92 M. 4/4 No. 2 Common and Better Soft Maple.
No. 1 and 2 Common all 6 ft. and longer.

The Stearns Salt & Lumber Co.

Ludington, Michigan

W.M.RITTER LUMBER COMPANY

Below is List of Dry Lumber We Can Ship Promptly

POPLAR
We can furnish all thicknesses and grades from 5/8 to 4 in.

RED OAK
4/4 firsts and seconds, 2 cars.
5/4 firsts and seconds, 1 car.
6/4 firsts and seconds, 1 car.

WHITE OAK
3/8 firsts and seconds, 1 car.
1/2 firsts and seconds, 1 car.
3/4 firsts and seconds, 2 cars.
4/4 firsts and seconds, 1 car.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 3 cars.
8/4 firsts and seconds, 2 cars.
No. 1 common we can furnish in all thicknesses from 3/8 to 2 in.

CHESTNUT
Can furnish all grades and thicknesses from 4/4 to 8/4 in Chestnut.

BASSWOOD
Can also furnish any grades in 4/4 that you require.

The above is a list of dry stock which we can ship promptly. All our own manufacture, band sawed and thoroughly dry. Do not place your order before writing for prices.

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HARDWOOD LUMBER

Wholesale Distributing Yards and Sales Offices

JAMESTOWN, N.Y.

Mills at—

Union City, Pa. **Monticello, Ky.**
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Full assortment of grades and thicknesses in Quartered and Plain Oak, Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS. ***IMMEDIATE SHIPMENTS.***

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

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Manufacturers of Hardwoods—Any Thickness From

1/30″ SLICE CUT VENEER
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to
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Specialty:

QUARTERED WHITE OAK

MAPLE LEAF SAWS

MAPLE LEAF SAWS, **"THE PROVEN BEST,"** absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

Shurly-Dietrich Co., Limited, Galt, Ontario

Branch: VANCOUVER, B.C.

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

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Manufacturers of Lumber Tools

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MADE IN CANADA

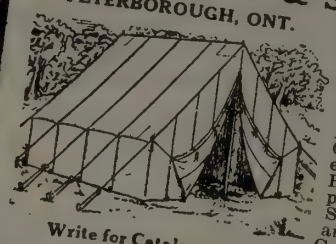
It's a Pink anyway you take it, and it's the best Peavey made.

Leading Firms

CATERING FOR

Mill, Factory and Camp Business

J. J. TURNER & SONS
PETERBOROUGH, ONT.



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ALGONQUIN STEEL RANGE.

A good Steel Range for Camp Use

Can be fitted to burn wood, coal or coke. Special price to lumbermen.

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Caldwell's Molasses Meal

Guaranteed to contain 84 per cent. Pure Cane Molasses

Increase the efficiency of your horses, keep them free from Colic and indigestion

Leading lumber camps now using it

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Purina Horse and Dairy Feeds

With Molasses and Alfalfa

In Checkerboard Bags.

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Note our NET PRICES per foot on NEW RUBBER BELTING

4 ply.	5 ply.
8" at 31c	8" at 36c
10" " 40c	10" " 47c
12" " 50c	12" " 60c
14" " 55c	14" " 70c

Send for our Net Price List on Belting of every description,

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Saddle Tank Locomotives
Geared Locomotives
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ALL SECONDHAND

Correspondence solicited.

SESSENWEIN BROS.
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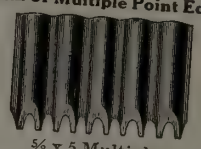
Corrugated Joint Fasteners

Plain or Multiple Point Edges

Packed in bulk or packages.



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⅝ x 5 Multiple

Any depth and any number of corrugations

The Steel Co. of Canada, Limited
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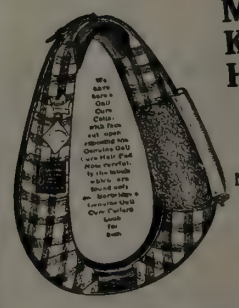

Maple Leaf Kanthurt Horse Collars

(PATENTED)

These collars will not hurt your horses' shoulders.

No. 62 Lumber, Hogskin face, $37.00 doz.

Saddlery & Moccasins

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Anchor Brand Oats

In Bulk or Sacks

The Best Oats on the market. Let us fill your next order and prove what we say.

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"VIVAT"

Specific for Horses

A quick remedy for Cough, Broken Wind, Heaves, Colics, Worms and diseases of the Urinary Organs. It is a powder, not a liquid.

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Offices also at Fort William and Montreal

Largest Wholesale Dealers in Hay and Oats in Canada

Write or wire us at any of the above offices. We do the rest.

"HE WHO SERVES BEST PROFITS MOST."

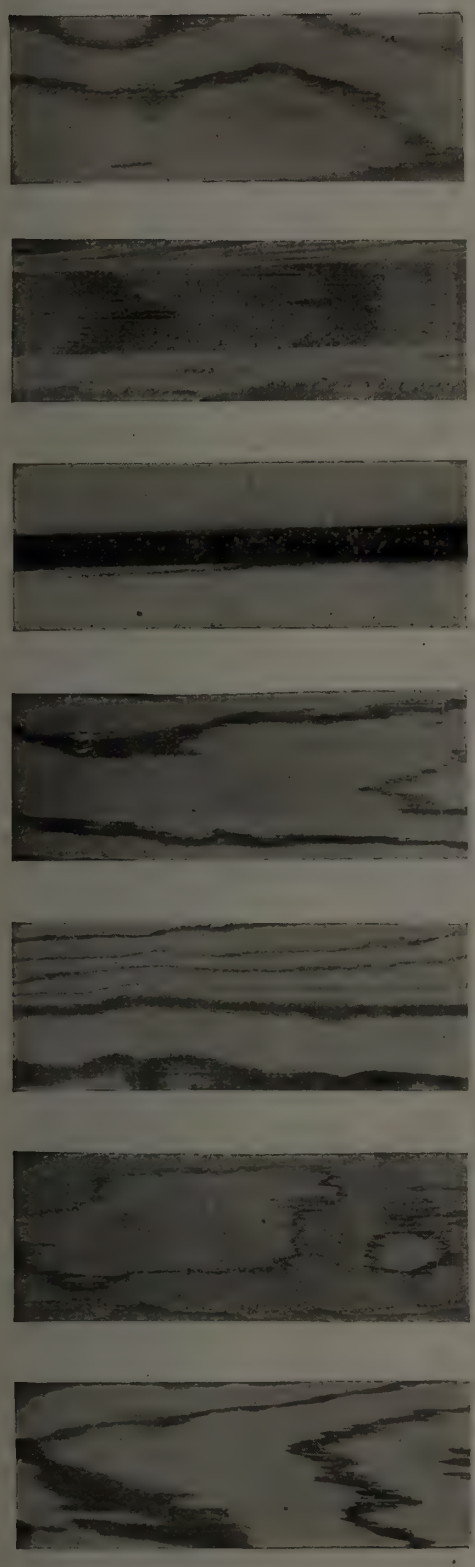
TRADE MARK
"The Alligator Brand"

HARNESS
COLLARS
SADDLES

A complete line with several specialties for the Lumberman.

Lamontagne Limited.
Balmoral Block, MONTREAL

Isn't it a relief to turn from war, rumors of war battle, pillage and bloodshed to something real, tangible, *normal,* in fact, to



"Figure" one of the more valuable features of Arkansas Soft Pine.

Arkansas Soft Pine

"Not cut with a Broadaxe."

When you are asked to pay a premium for Arkansas Soft Pine — that is to pay more for it than you would have to pay for other kinds of lumber claimed to be the "same thing," — what is your natural inclination?

You pay more because it is worth more.

Turn on the Searchlight

of a trial order and it will reveal this condition:

"Car No. 47,740 arrived and is partially unloaded.

We wish to say this carload is all that you claim for it.

We were beginning to think that all lumber manufactured by the yellow pine people of the south was cut with a broadaxe, but you certainly have **restored our confidence** and we must say that this is the **best manufactured carload of lumber, of** ANY KIND **that we ever had in our yard.**

You will hear from us later about more material."

The buyer making that report **paid a premium of $4 a thousand feet** for the stock. He will be **in the market again for more of the satisfying kind.**

What kind do you handle?

Edgar Lumber Company,	Wesson, Ark.	Wisconsin & Arkansas Lumber Co.,	Malvern, Ark.
Fordyce Lumber Company,	Fordyce, Ark.	Arkansas Land & Lumber Company,	Malvern, Ark.
Freeman-Smith Lumber Company,	Millville, Ark.	Arkansas Lumber Company,	Warren, Ark.
Gates Lumber Company,	Wilmar, Ark.	Cotton Belt Lumber Company,	Bearden, Ark.
Southern Lumber Company,	Warren, Ark.	Crossett Lumber Company,	Crossett, Ark.
Stout Lumber Company,	Thornton, Ark.	Eagle Lumber Company,	Eagle Mills, Ark.
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Your Lumber Horse Needs

A talk with the Lumberman of Canada on the modern and sanitary system we have installed to serve your requirements.

FINANCIAL RESPONSIBILITY.—We are in a position this season to supply the lumber trade with the finest heavy horses suitable for camp work. We have shippers in the very best heavy horse district in Western Ontario, who make personal selections and take only the best. Every horse we ship out is guaranteed to be just as represented by us as to age, soundness, weight and quality—there is more than two million dollars behind this guarantee. These horses can be delivered off the incoming cars and transhipped in an hour from our yards.

SERVICE.—Our barn accommodation is up-to-date in every particular and has stabling accommodation for 500 horses. A track is also maintained for exercising horses while on the company's premises.

SANITATION.—Believing that prevention is better than cure, and to give the very best service possible we have this year employed a veterinary surgeon under salary. A daily and most thorough inspection is made by him of the entire barns and in this way the slightest indisposition is noted and the animal suffering immediately removed to the hospital on the grounds. "Safety first" is our motto in this respect.

TRANSPORTATION.—Our premises being directly on the lines of the C. P. R., G. T. R. and C. N. R., our rail facilities are such that we are in a position to ship on an hour's notice, and loading and unloading chutes are located right at the barn doors.

We gladly invite inspection of our entire system. Come and let us show you the most modern and sanitary system in Canada.

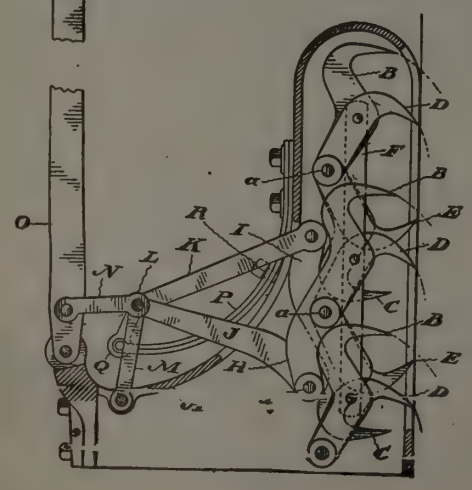
Union Stock Yards of Toronto, Ltd.

Horse Department: **Wm. Read, Sales Manager**

FULL VALUE FOR YOUR MONEY

650 Sets Payette's
Famous Patent Mill-Dogs Sold
Why?

Fig. 1.



Because (1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

We also manufacture the following High-Grade Saw-Mill Machinery:—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.
Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.
Descriptive Booklet and prices mailed free upon request.

P. Payette & Company

Engineers and Machinists

Penetanguishene, Ontario

SPUD

for Bark Peeling, fills a long felt want.

Made of Forged Steel with substantial Sockets uniform in size.

Prompt shipments in any quantity desired.

The

Thomas Laughlin Company

Portland, Maine, U.S.A.

We also manufacture a large line of CONTRACTORS' SUPPLIES and MOTOR BOAT FITTINGS.

If a dealer, ask for our 450 page catalogue.

THE PETER GERLACH Co

MANUFACTURERS AND BUILDERS OF

CIRCULAR AND CYLINDER SAWS

STAVE HEADING AND BARREL MACHINERY

SAW AND LOGGING TOOLS

For the Manufacture of the Following:

STAVES	HEADING
BARRELS	KEGS
COOPERAGE	WOODEN WARE
HOOPS	HANDLES
PAILS	TUBS
CHURNS	FREEZERS
CANDY PAILS	FISH KITS
BOX BOARDS	BOTTOMS
CHAIR STOCK	SHINGLES
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COMPLETE PLANTS

FOR THE MANUFACTURE OF

BARRELS, KEGS, STAVES AND HEADING

OUR SPECIALTY

FOR PRICES AND FURTHER PARTICULARS, ADDRESS

THE PETER GERLACH Co. CLEVELAND, O. U.S.A.

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 8-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

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2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

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1 20-ft. Slash table.

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1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

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1 Lath Mill with bolter.

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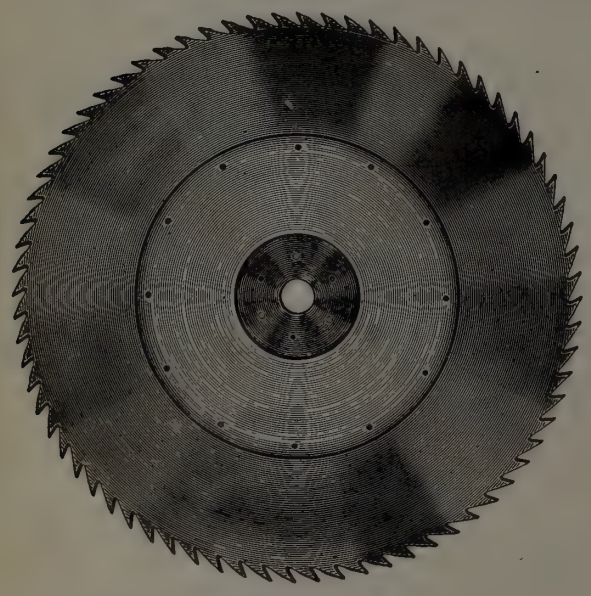

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Canada Lumberman & Wood Worker

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Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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The Lumber Trade Situation

The single topic of discussion in every lumberman's office in Canada today is the war, and the effect which it is having and is likely to have upon trade conditions. All the other old favorite subjects have been forgotten for the time being. One hears little or nothing about yellow pine or American hemlock. The old real estate boom and its collapse seems to be matter of ancient history. The Mexican war, Irish trouble and the suffragettes, all have been laid aside as subjects of conversation and the war occupies everyone's attention. Every shade of opinion as to the effect upon trade may be heard in the different offices which one visits, depending, we suspect, to a very large extent upon the attitude of the individual's bankers towards his account. And although we hear a great deal about business having come to a standstill, there is, on the other hand a greater amount of hopeful expectation of trade improvement than might be expected at first thought.

A certain wholesaler discussing the matter recently, voiced this opinion very forcibly. He had been out in the country a great deal of late, and, even during the first week of the war, when many people were expecting blue ruin to swallow them up bodily in the course of a few hours, this lumberman was travelling through Ontario, selling a few cars now and then, making enough to pay expenses and profit for his firm, and spending a good deal of his time sizing up the crop situation. "I never saw better crops in Ontario," he said upon his return. "Practically everything is in splendid shape. The oat crop was never better. I do not believe it was ever as good. Many more cattle are to be seen on the farms than in former years. The root crops are looking magnificent. The Ontario farmer in fact, is in a splendid position. Even in ordinary times, he would now be sure of a profitable year, and with the likelihood of a greater demand than ever for his output, on account of the war, I cannot see how he can fail to have the best year he has ever experienced. He will sell his crop and stock at good prices and will be well off."

"But won't he put his money away carefully, instead of spending it in new buildings and improvements?" we asked.

"What if he does? The money is there. If he puts it into the bank instead of spending it upon lumber, building material, implements, etc., the bank will be that much better off, and will be willing all the sooner to lend money to legitimate business. Whichever way you look at it the Ontario farmer this year is going to be a most important factor in assisting business to get back upon a normal basis, and once it is back, no one will remember the hard times which have been gone through."

"Will the banks really loosen up?" was the next question.

"Well, I don't know and nobody else knows, except the managers of the banks, and probably very few of them have a clear idea of it as yet. But what can they do but loosen up if they get the farmers' deposits? They cannot afford to leave their money idle. They must put it into legitimate undertakings, which they have good reason to believe are safe. Why, even today they are doing so, and anyone can see it if he will only look at the matter from a less anxious point of view.

"The banks are doing a great deal to assist those wno are known to be managing their business in a safe manner. What the banks are not doing is encouraging new ventures. I know of a company with an A1 business reputation, who have some newly acquired timber, of which they own every stick. They bought it outright. They asked their bank for a loan to assist them in operating upon this timber next winter and were refused immediately. In ordinary times the bank would have been glad to take on a piece of business of this class, but today the case is different. As a matter of general policy they have decided to reserve their funds for business which is already under way and is doing well. Take our own case for instance. Some time ago we bought some stock from a manufacturer, part of which still remains to be moved. The manufacturer recently found that he needed money, and a few days ago he took our note for $800 to the bank to be discounted. The bank knew that we were cautious and were reducing our stocks as much as possible, also that we had always done a purely legitimate business, avoiding speculation and being content with fair profits on a large volume of sales. They discounted the note without any question. The manufacturer got his money and made whatever payments he was in trouble about. The same thing is going on all over the country. Those firms which have a reputation for sound business methods are not finding much difficulty about getting money. New undertakings cannot be financed, however, and all established ones doing business upon an extensive credit basis are being scrutinized closely by the banks, in just that manner which we would naturally expect under the conditions now prevailing.

"I do not believe there is any way of avoiding the conviction that Canada will come out of this crisis better off than when she entered it. I believe that everything will depend upon ourselves. The other day I was talking with a man who has made a name for himself all over Canada. A man of keen wit, who understands financial and commercial affairs perhaps as well as anyone else in the country. He is a man who has made wealth, has occupied positions of high honor in public life, and is today occupying one of the greatest positions of honor which the country can bestow upon its public servants. He is removed to a large extent from anxiety about trade conditions and takes a bird's-eye view of the situation. We were travelling in the same train and he told me that Canada, from a business point of view, would soon feel the quickening influence of the great demand for its products, which is certain to develop out of the war. He instanced cases already of plants which had been idle, and had recently been obliged to run night and day to fill the sudden demand. There might be saces in which great industries would be shut down, but it would be found that their situation was peculiar and would not reflect upon general conditions very closely. Their sales were mostly in foreign countries which are now at war, and in which the demand had been closed off. But, taking our productions in general, we turned out, in large measure, those classes of food stuffs and manufactured articles which would be urgently required as a result of the war, and we stood to gain, no matter which way we looked at the situation.

"It would be nonsense to say that trade is good today, but I do not expect this condition to last. It will not take long for trade to settle into the new channels, and just as soon as the people get over the feeling of panic which followed the opening of the war, the banks or some person of importance will make a statement to the effect that conditions are sound. You will see a steady improvement from that time onward. I do not believe it will be long before trade conditions are better than they have been for a long time, and as soon as the improvement comes it will obliterate the effects of the long continued depression, which has been hampering trade for the past year or two.

"I hear some people say that they are taking their travellers off the road. They do not expect to be able to pay travelling expenses They are foolish. I am going out on the road again tomorrow. I feel sure that I will get enough orders to make it worth while. There is a fair amount of business going on even today, and I am not going to lie down. I believe that the very time when the other fellow stops going out for business is the best time to make a special effort and try to pick up a few new customers. Have you ever noticed that when a farmer stops raising hogs, that is the time to raise them and make some money. The same thing applies to cattle, dairy products, etc., When the other fellow commences to lie down, there is soon going to be a lot of demand that is not being supplied, and the man who is in the field with the goods gets the cream of the trade. That is why I am going to keep at it. Besides, I don't want the retail man to get nervous. If the travellers all stop calling upon him he will worry more than ever, and think that there must be no business whatever when nobody comes around to try and sell stocks to him.

"I may be wrong, but I think I see great opportunities ahead of the people of Canada today. We must do well. Even in the West, where there has been so much pessimism and depression, things will improve soon. They cannot get any worse. There is no sense in taking a depressed view of the situation as it stands today. The logic of events all point in the other direction. A simple glance into history will substantiate this fact. That is how I feel about the whole situation. Trade has got to improve very soon and the commencement of the improvement will depend upon how quick the majority of the people come to the same point of view and recognize the inevitable."

United States Production of Lumber in 1913

The production of lumber in the United States in 1913 was about three-quarters of a billion board feet less than in 1912, according to official figures just issued by the United States Department of Agriculture. The figures are based upon reports of production which the department obtains yearly from the lumber manufacturers. In 1913, 21,394 mills reported a production of 38,387,009,000 board feet as against 39,158,414,000 feet reported by 29,648 mills in 1912 and 37,003,207,000 feet reported by 28,107 mills in 1911. Although about 8,000 fewer mills reported in 1913 than in 1912, most of those not reporting were of small capacity and the inclusion of their reports would not, it is said, materially increase the total.

The high-water mark in lumber production was set in 1909, when the cut exceeded 44,000,000,000 feet. In 1907 and 1910 the cut was slightly over 40,000,000,000 feet. No other years have come up to the record of the last two years.

The production in 1913 of nearly as much lumber as in 1912 is of special significance in view of the business conditions which have existed in the industry. During the first three months of the year the lumber trade was excellent, but in the second quarter the demand for lumber fell off noticeably. Further weakening in the demand during the summer led to a substantial curtailment of production in the yellow pine and Douglas fir regions. The fall demand did not improve. In general, the year was one of overproduction and slack business in the principal lumber manufacturing regions.

Notwithstanding curtailments in the production of yellow pine and Douglas fir, the reported cut of yellow pine was about seven-tenths of one per cent and of Douglas fir about seven and a half per cent. greater in 1913 than in 1912.. The cut of Douglas fir in 1913 was the largest ever reported, while the 1913 cut of yellow pine was second only to that of 1909. Had not enforced curtailment in the output of these two woods been necessary, the total lumber production of 1913 would undoubtedly have exceeded that of 1912. In fact, had not the cut of white pine, hemlock, spruce, oak, and maple declined in 1913, the increased cut of yellow pine, Douglas fir, cypress, and red gum in that year would have carried the total beyond that for 1912.

The increased cut of certain woods is reflected in the increased production of Washington, Oregon, and the lower Mississippi Valley states, while the decreased cut of other woods is reflected in the decreased production of the northern, central, and Atlantic states. The reported production of 4,592,053,000 feet in Washington in 1913 was the largest ever recorded for that state or any other state. The largest production previously reported by one state was that of 4,311,240,000 feet in 1890 by Michigan.

Of the total reported production of lumber, softwoods contributed 30,302,549,000 feet, board measure, in 1913, as against 30,526,416,000 feet in 1912, and 28,902,388,000 feet in 1911.

About 60 per cent. of the total lumber production in 1913 was sawed by mills cutting 10,000,000 feet and over annually. Some of these mills cut but one kind of wood, such as yellow pine or Douglas fir, but others cut several kinds, as in the case of hemlock and hardwood mills in the lake States. Mills sawing 10,000,000 feet and over annually sawed in 1909, the only other year for which such figures are available, 19,126,123,000 feet, or 43 per cent. of the total quantity of lumber cut in that year.

Merchants Predict Little Increase in Cost of Camp Supplies

Conflicting reports have been received from some of the large lumber manufacturing firms of Eastern Canada, in regard to the probable extent of logging operations in the woods next winter. Some of the largest firms have announced that they will not cut any more logs than absolutely necessary. Others are not making any alterations in their plans, according to present intentions. Still others state that their plans have not been made as yet, and that they are waiting for further information as to the trade outlook, before deciding as to the extent of their operations. The chief consideration in this connection is the probable cost of operations which some manufacturers consider will be much higher than in former years, on account of an expected increase in the cost of feed and provisions. Against this increased cost, if it actually comes into effect, will be the reduced cost of labor, which, according to latest reports will be cheaper and much more plentiful than in former years.

The Canada Lumberman has made extensive inquiry into the situation in connection with the cost of feed and provisions, and the information secured is largely of a nature to indicate that the cost will not be greater than in previous years. The chief items entering into the cost of feeding horses and men are, hay and oats, pork and its products, canned goods, tea, sugar and coffee, evaporated apples, peaches, apricots, prunes, flour, oatmeal, etc. In connection with oats, the situation is perhaps a little disquieting, on account of the fact that the government has commandeered all the oats east of Fort William at present in the elevators. This, however, does not present such a serious situation as might appear at first glance. It means that the government has secured all the oats now in store. This consists of the remainder of last year's crop. The crop of the present year in Ontario is one of the largest ever reported, and is now sure to be a remarkably excellent crop both as to quality and quantity. This stock will all come on the market early in the Fall, and much of it will be available for local consumption. The price of oats or late has gone

up extensively. An important dealer reports that before the declaration of war he was paying 46 and 47 cents per bushel for oats, whereas the last price he paid was 63 cents, but he believes that when this year's crop commences to come upon the market, the prices will fall again, on account of the size and high grade of the crop. Much of our oats already went abroad before the war and dealers do not consider it probable that the additional amount exported during the war will be sufficient to make the prices mount. In fact, the present price is thought to be higher than reasonable, being the result of the finest panicky feeling arising out of the declaration of war. There is no question that oats and hay will be dearer during the war than they would have been if the war were not in existence, but if it were not for the war, it is practically certain that the price of oats would have been lower than in former years. During the war it is now considered likely that the price of oats will remain fairly stationary at about the normal of previous years, after the situation has become a little more settled.

A dealer in hay and oats, summing up the situation so far as supplies and this year's crop of oats are concerned, said to the Canada Lumberman, "The stuff is in the country in sufficient quantities, but the farmers do not want to sell. It is more than likely that they will put it on the market in large quantities, a little later on, and that the price will drop to normal. There is not a heavy crop of hay in Eastern Ontario, but in the western part of the province the crop is fair. They say the government has bought 10,000 tons of hay, and that this will make the price high, but the government may buy such a a quantity and still not affect the market seriously. The stuff is not going out of the country all at once. The government is playing safe, getting its hands on a large quantity so as to be prepared, and much of it may come back on the market before many months. In fact extensive purchases, due to the war, are not likely to have an immediate and lasting affect.

A dealer in provisions, who sends large quantities of pork, etc., to the lumber camps, reports that the price of pork has not advanced, and is not likely to advance, this year. On the other hand hams are already a little higher, because of the enormous consumption at this time of year. The same dealer referring to beans, states that the old crop has all disappeared, and that prices may be higher this winter. Canned goods he says have not advanced, and are not likely to do so.

A large wholesale grocer whose trade extends to many of the lumber camps in Northern Ontario reports that the prices of all camp staples such as prunes, evaporated apples, peaches, apricots, etc., will probably be less than they were last year. Tea, coffee and sugar on the other hand will be higher.

Taking into consideration all the opinions expressed by wholesale dealers in camp supplies, one is justified at present in concluding that there will be some important advances in prices, but that these will be off-set, possibly even more than off-set, by the decline in other lines, and that, from present indications there is very little reason for lumber manufacturers to reduce their woods operations on account of the cost of feed and provisions. One must of course take into consideration the fact that these firms are all interested in seeing their trade continue on a profitable basis, but nevertheless, it is significant that their opinions coincide with those which have been expressed by many other wholesalers and manufacturers in other lines, namely that so soon as the business world gets over the first feeling of panic which naturally possessed it during the early days of the war, there is likely to be a fairly general revival of trade, and a return to much more normal business conditions. In fact, all the merchants who were interviewed expressed the opinion that they would be able to take care of the lumber camps in a manner which would be satisfactory to the men and would enable them to conduct their operations without giving much consideration to the question of the cost of food stuffs.

Editorial Short Lengths for Busy Readers

The staff of the recently organized Lower Ottawa Forest Protective Association, to which all the lumbermen and paper manufacturers in the Ottawa and Gatineau districts now belong, will comprise a manager, three inspectors, and 50 rangers. In order to co-ordinate the efforts of all the agencies interested in protecting the region from fire, the manager of the association has been appointed an officer of the Forest Protection Association branch of Quebec, as well as of the fire inspection department of the Dominion Railway Commission. To reduce the fire hazard as much as possible, close co-operation with the settlers and with the railways operating in the territory will also be sought. The territory to be covered by the fire rangers will be over 10,000 square miles of timber lands in the watersheds of the Gatineau, Lievre, Coulonge and Nation Rivers.

In connection with the trade situation developing out of the European war, a feature of the utmost importance to lumber manufacturers in Canada, particularly those of Ontario, Quebec and the Maritime Provinces is the practically complete stoppage of shipments of timber from Russia to foreign countries, particularly to Great Britain. During recent years, Russia's exports of timber have rapidly increased and they have been responsible for the steady and most disturbing decrease in the exports of wood goods from Canada. Russia's wood goods have to a very large extent supplanted many important Canadian markets abroad. It is reasonable to expect, as a result of the war, that Russia's timber exports will become practically nil for the time being, and that Canadian exporters, if they are able to take advantage of this situation will secure the important advantage to their trade that is of the utmost importance. Last year Russia's timber exports amounted to 7,429,015 tons valued at £17,222,100. These figures compared with 6,862,145 tons valued at £16,049,790 during 1912. Russia's exports of timber goods consisted of logs, baulks, beams, boards, deals and other sawn lumber, pit-props, match and pulp wood, firewood, poles, rickers, etc. Practically all of these products are manufactured and exported heavily by the Canadian lumbermen. Even after the end of the war it is believed that the countries of the old world will require our products for many years, so that these markets, now so completely thrown open to us, are of the greatest possible importance. Canada is apparently in a position to reap a great advantage from this situation.

The Consul-General at Philadelphia, Pa., strikes a warning note when discussing the timber industry of the United States in his annual report, and he draws attention to the rapid exhaustion of wood that is going on throughout the Republic. In the year 1911, he points out, it was estimated that there were 1,540,000,000,000 feet of standing timber in the United States. Fairly accurate estimates assert that the annual cut in the United States of America increases each year by five per cent. In the year 1911 65,000,000,000 feet were cut in the United States, so that in the year 1912 there remained 1,475,000,000,000 feet of standing timber. In the year 1913 there remained 1,400,000,000,000 feet of standing timber. The estimate for the year 1914 is that there will be standing at the end of the year a little over 1,342,000,000,000 feet, and the reduction will thereafter be so rapid that in the year 1918 there will be standing timber aggregating only about 1,036,000,000,000 feet. The number of forest fires reported for the year 1913 amounted to 4,520, nearly twice as many as occurred in 1912. The aggregate loss in timber is estimated at nearly 59,000,000 board feet, valued at $82,000 (about £16,400), and the damage to young growth and foliage is estimated at $110,000, (about £22,000), making the total loss $192,000 (about £38,400). About 18 per cent. of this occurred on private property. Lumber export statistics for 1913 show that there was an increase over 1912 in shipments of nearly all classes of woods from the entire country. Pitch pine showed the greatest gain—nearly 25 per cent.

Much more pulpwood will be cut in the timber limits in Eastern Canada this year by pulp and paper manufacturers in Ottawa and district than was the case a year ago.

The Reader's Viewpoint on Trade Topics

Lumbermen Taking a Hopeful View of the Situation—War Expected to Improve Trade in the Long Run

Although there has been a great reduction in the volume of lumber orders throughout Ontario during the period since the opening of the war, which was naturally to be expected, there is already a feeling among the trade that the future is not nearly so black as it appeared at first glance. In the first place we were probably on the eve of a steady trade improvement when the war started, and the influence of the various conditions that were combining to bring about this improvement, must be felt before long. To these influences there is to be added the fact, now pretty generally recognized, that many lines of industry in Canada will benefit by the demand developing out of the war. Lumber cannot be directly classified among these lines, but it will benefit in the long run. As to the immediate position, many reports already indicate the fair probability of trade revival in a short time, especially if we are fortunate enough to receive encouraging reports as to the progress of the war. The excellent crops of Ontario could not fail, even in ordinary times, to assist in the restoration of business activity. To-day, when it is probable that the farmers will receive enhanced prices for their products, the influence of a good crop should be still greater.

Manufacturers of lumber are holding back their plans for winter logging operations. They do not fear any lack of need for lumber next year, but do fear that money will be exceptionally scarce and that the natural or even excessive demand will be stifled. The present outlook is for a considerable reduction in logging operations.

Predicts a Business Revival Soon

George H. Holt, of the Holt Lumber Company, Chicago, Ill., and of the Holt Timber Company, of Whitestone, Ont., was in Toronto recently and called at the office of the Canada Lumberman. Mr. Holt expressed the opinion that as soon as the people of Canada and the United States got over the temporary commercial and industrial depression brought about by the war, there will probably be a noticeable improvement in the business life of the two countries. In order to bring this about, there would have to be a radical and important readjustment of financial affairs, involving new arrangements for promoting the exchange of currency and credit, so that they may be available for business although flowing through new channels while the old established channels are broken. Mr. Holt believes that readjustments of this sort would soon be made, in fact an important start had already been made by arrangements for having the department of finance at Ottawa act on the part of the Bank of England in this connection. The ultimate result of the war, Mr. Holt said, irrespective of the side which might be victorious, would be that the great producing countries of Canada and the United States would find an enlarged demand for the natural and manufactured products. The great producing centres in Europe would be temporarily out of business. Large amounts of property would be destroyed. The actual fighting population would be in great need of foods, clothing, etc., and in many ways there would be extensive opportunities for Canadians and Americans from a business point of view.

No Panicky Reports from this Quarter

Mr. Chas. O. Maus, eastern representative of the Hyde Lumber Company, South Bend, Indiana, passed through Toronto recently on the way to his home in Atlantic City, N.J., accompanied by Mrs. Hyde and family, who had spent the summer at Southampton, Ont. It was a pleasure to hear Mr. Maus' views of trade conditions, as they were in decided contrast to many other views which one may hear every day at present. "Canada and the United States," said Mr. Maus, "have nothing to fear as to the economic outcome of the present war. The eyes of the world are upon these two countries, and as a result of the war, it is unquestionable that the trade operations of these two countries will be enormously increased. Just at present people are a little bit panicky, but in the very near future you will see an altogether different state of affairs. I have been doing some very nice business in Ontario recently, and have sent home a number of good orders for quarter cut and plain white oak."

Expect the War to Improve Lumber Trade

Editor Canada Lumberman: Bathurst, N.B., Aug. 21.

We find trade has been a little quiet since the declaration of war, but we are now beginning to get a good many inquiries and some new orders are coming in. In fact, in the last week, we find a decided change for the better and it looks to us as though we would have a good fall and winter's trade. There is no doubt at all but what all the food products of Canada and the United States will be wanted by the countries engaged by the war, and also, they will want many of our manufactured goods. This is bound to stimulate trade in both the United States and Canada and we believe that lumber will share in the demand and be an active factor.—The Bathurst Lumber Company.

Foresee a Rapid Business Improvement

Editor Canada Lumberman: Ottawa, Ont., Aug. 22.

While it may be a little early to predict what effect the European war will have on Canadian commerce, the writer firmly believes that Canadian tradesmen and business men should settle down and endeavor to secure part of the foreign trade that was held by some of the nations now at war.

For the time being, this great calamity has almost paralyzed trade in this country, but we believe that Canadians are sane enough to grasp the situation and, in a very short time, we think that business will improve very rapidly, particularly, as commerce on the high seas is not likely to be affected.

Some of the smaller countries that have been importing considerably from Europe, particularly South America and the West Indies may find it a little difficult to finance, but we believe that it will be arranged satisfactorily before a great while.

Of course, it is not necessary to single out the lumber business, as we find it is in about the same position as most of the other industries.—Shepard & Morse Lumber Company.

A Good Crop Certain to Help Trade

Editor Canada Lumerman: Hamilton, Ont., Aug. 17.

The lumber situation to-day is in a very critical state, more so than a month ago.

It seems to us that the declaration of war helps a certain line of business that the country makes a bigger demand of and fluctuates the prices. In the lumber line, there is nothing like this as no lumber is required for war. Exports are cut off, money is tightened up, building operations cease, carpenters and manufacturers have to shut down their business. In fact, American lumber is not coming into Canada. The war has stopped this as there is no demand for any class of lumber. Several weeks ago, Americans had the Canadian trade in hand both in Michigan and Wisconsin hemlock and yellow pine. To-day there is no trade, so consequently the Americans do not hurt the Canadian Trade very much.

I would suggest that now is the time for Canadians to regulate their cuts, etc., and hold the Canadian trade, as no doubt it cannot get any worse than it is at the present time, and is bound to improve. The only thing that will save the situation, if war continues, is a bumper crop in the west.

The information we have from Michigan firms is that prices are firm and will probably stay firm for some time, as, in all the mills in northern Michigan there were only nine million feet on sticks and most of it is green.—The Long Lumber Company.

Finds Trade Depressed But Hopes for the Best

Editor Canada Lumberman: Marmora, Ont., Aug. 20.

The past winter and summer have been the most puzzling in the experience of the writer. During the winter and spring there were many indications and good prospects of steady improvement in business, but so far as we can judge this has not materialized. While general local trade has been very good the wholesale trade has been very quiet and the declaration of war has supplied the finishing touches. Hardwood stock has been particularly dull, and, we notice by the paper, that numbers of the factories using this class of stock are either closed down altogether, or running on part time. The export trade also has been entirely cut off, except to the United States. The outlook does not appear to us to be very promising. We have heard of one or two instances of price cutting, but we do not believe that this has been very general so far. It may be possible that the spruce trade will be good on account of the demand for paper, but we doubt very much whether there will be any marked improvement in the hemlock, pine and hardwood markets for some time, unless the war comes to an unexpectedly successful termination. We do not think that lumbering operations will be carried on to more than a

very limited extent throughout this district during the coming winter. Wages will probably be considerably lower and the cost of supplies is almost sure to be much higher. Altogether we are participating a very dull winter. We sincerely hope that things may take a turn for the better.—The Pearce Company, Limited.

Looking for Steady Trade and Improvement

Editor Canada Lumberman: Ottawa, Ont., August 20.

We find that business has been affected to some extent by the uncertainty in the minds of retailers as to how the war will affect business. We believe that this uncertainty will gradually give way to a realization of the fact that the ultimate effect of the war will be beneficial to Canadian trade. It can scarcely be otherwise, when one considers that manufacturing is practically paralyzed on the continent, and that this country and the United States are the only two countries in a position to supply lumber and other manufactured products without interruption during the war. We look for a fair trade next spring and we also expect that our present prices will be substantially maintained.—Devon Lumber Company, Limited.

Canadian Lumber Trade Should Benefit

Editor Canada Lumberman: Toronto, Ont., Aug. 22.

Our opinion in regard to the effect of the European war upon the lumber trade can only be expressed with reserve and hesitation under the present uncertain conditions. However, from our experience of the trade from coast to coast, as well as in the old world, we find that the immediate effect is the general easing up of the building trade, and a temporary shutting down of manufacturing plants, also the placing of other plants on a half-time schedule. Orders for future deliveries are delayed and some orders that were placed for definite shipment are cancelled.

There can be no doubt however, that the enormous destruction and waste of property and material, and the almost complete cessation of constructive business in the old world through this disastrous war must mean before long a great demand for our lumber, and even for the finished product of our lumber to replace and re-build all that has been destroyed by this great devastation, and Canada should benefit enormously in the next few years.—The Siemon Company, Limited.

May Benefit Trade in the Long Run

Editor Canada Lumberman: Ottawa, Ont., Aug. 20.

It is too early as yet to venture any definite opinion as to the effect of the war on the lumber trade. In a general way, my feelings are about in line with what you say in your letter is the expression of a great many of the lumbermen, but further than this I do not care to go.—J. R. Booth.

Business Sure to Improve After the War

Editor Canada Lumberman: Huntsville, Ont., Aug. 21.

The unsettled condition in Eastern Europe for the past couple of years interfered seriously with all lines of business in Canada, the lumber business suffering with other lines. The dread of the present war has been the cause of the financial stringency which Canada has felt so keenly for the past eighteen months. Just at present people are somewhat panic stricken but we feel certain that, when the present conflict in Europe ceases, there will be much better demand for lumber, as well as other commodities, than there has been for some years. The cities in Canada require many more houses than there are in them at present. Lack of funds has been the real cause for any depression that we have felt in the lumber business. As soon as the war is over, lumber will be required and we feel satisfied that business will improve greatly in the lumber line.—Muskoka Wood Manufacturing Company, Limited.

Cooperage Trade Expecting a Good Season

Reports from throughout the country are that the apples are coming through in good condition, especially in the Eastern States. While the dry weather in June caused considerable dropping, the trees were really overloaded, and this dropping has only helped the quality and still left plenty of apples on the trees.

The July rains almost assured the crop, and we expect that there will be more than an average crop in most of the States and in Canada. The demand for apple barrel stock is beginning to spring up again, as the coopers have used up the bulk of the stock they had to make store barrels and are now beginning to figure for the fall trade.

There is very little change in prices. Heading and hoops still continue low, but heading is stiffening up a little. We do not, however, expect very much change in prices for a short time. The general trade throughout the country is about normal for this season of the year. Legislation causes some uneasiness, and until this settles down the country will not get back to its booming condition of three years ago.

Every indication points to a good fall and winter trade, and if confidence throughout the country is restored, with the prospects for the best crops that there have been for years in the United States and Canada, everything in the way of cooperage stock will be required to take care of the trade.

The demand for tight barrell stock in some lines is very good. The whiskey staves and oils are a little dull, but backed and undressed staves are in good demand, and, as the production last winter was light, we are afraid there is going to be a shortage before next spring. However, if there is good weather during the fall, we have no doubt considerable rived stock will be produced this year.—Sutherland-Innes Company, Chatham, Ont.

May Greatly Improve Trade

Editor Canada Lumberman: Montreal, Que., Aug. 20.

Replying to your inquiry as to the effect of the war upon the lumber trade, in the first place the present effect is the curtailment of both local and export trade.

The effect in future will altogether depend upon the duration and result of the present European trouble. I am satisfied that if the war does not last too long, the lumber trade in this country should be greatly improved.

I do not think it possible for anyone to estimate the effect of the present trouble on the affairs of the country. We, like many others, hope for the best.—The McLennen Lumber Company, Limited.

Will Reduce Hardwood Output

Editor Canada Lumberman: Toronto, Aug. 24.

It is a little early to advise as yet as to the effect of the European war on the lumber business. I am of the opinion however that the sale of lumber will be considerably reduced, due to the stoppage of building operations. Cheaper ends however will, I feel, continue in good demand. The sale of hardwood will decrease, due to the cessation of the manufacture of furniture, and the limited export. It is our intention, in view of the prevailing conditions not to operate for hardwood this winter but we will continue to operate for hemlock and a small amount of pine.—A. Greigg, General Manager, Standard Chemical, Iron & Lumber Company.

Ultimate Effect of War Beneficial to Business

Editor Canada Lumberman: Renfrew, Aug. 22.

So far, the only effect the war has had upon our lumber trade is to stop shipment of about 250,000 ft. of elm which was going to export. Otherwise, our trade at Lancaster, Ont., has not been affected and we concur that the ultimate effect on business will be beneficial to the lumber trade, as we believe the active participation of Canada in the war will increase the political affiliations with both the Empire to which we belong and with the allied countries, and a beneficial sentiment is bound to prevail in the future. At the close of the war, we expect to see all industries in Canada experience a great revival and much prosperity. This will assuredly assist the lumber trade and we would like to see all firms engaged in the trade remain firm to this belief.—St. Lawrence Lumber & Box Company.

A Few of New Brunswick's Problems

Mr. J. Fraser Gregory, of St. John, N.B., recently gave evidence before the Dominion's Royal Commission on Imperial Trade Relations. Mr. Gregory's statements were entirely confined to matters relating to the timber trade. He stated that good marketable timber could be grown after twelve or fifteen years on a district which had been burned over, although it took about 35 years for the timber to grow up to the required size, from the sapling stage. The seeds of birch trees persisted in reproducing birch timber in spite of fire and other serious obstacles. Birch seeds had probably been established in New Brunswick previous to Confederation. Mr. Gregory expressed the opinion that the system in Quebec Province of issuing perpetual timber leases with restrictions against settlement was preferable to the system existing in New Brunswick. He also referred to the driving difficulties on the St. John River, which had arisen under the Ashburton Treaty, providing for the keeping open of the river for all time. He described also the encroachment made upon the river by an American firm which had built a boom. Although an International Commission had been working up this matter for eight years, no apparent result had been obtained. He claimed that the boom interfered with the legitimate rights of the New Brunswick license holders.

Busy Box and Lumber Manufacturers

Rapid Development of The Wilson Box Company, St. John, N. B., who Operate Plants at Fairville and Westfield—Equipment of the Mills

In 1910, foreseeing that St. John, N.B., was some day in the near future to become the "Liverpool of America," Alex. Wilson, who had had at that time some ten years experience in managing a box plant induced some of the leading business men of that enterprising "City of the Loyalists" by the sea to become associated with him in forming a company to operate a box plant and saw mill from which to draw raw material at first hand. Mr. Wilson's former experience as a bank man, he having been for thirteen years in the Bank of Nova Scotia, stood him in good stead, with the result that the capital was practically all subscribed for locally, everybody getting in on the ground floor, the stock being all sold at par with no "water" or promotion money attached.

The president of the company is Mr. T. H. Estabrooks, who is one of the largest and most successful tea importers in Canada, and his firm is a very valuable customer of the Box Company, requiring an ever increasing quantity of "Red Rose" tea cases.

The Vice-president is Mr. Stanley E. Elkin, the head of the Maritime Nail Company, Limited, whose products find their way all over Eastern Canada and a large portion of Western Canada also.

The Managing Director and Secretary-Treasurer is Mr. Alex. Wilson, a native born Scotchman, from Banffshire, who promoted the company, and who has governed its affairs so ably that it is now doing a first class business and is producing boxes and shooks of a quality and manufacture that is hard to beat. The slogan of the company is "Quality Counts."

Sawmill at Westfield, N. B., of Wilson Box Co., Limited, St. John, N. B.

The other directors are S. Y. Wilson, of A. Wilson & Son, Fish Merchants, Halifax, N.S., recognized as one of the most expert fish men on the Atlantic seaboard, and John Galey, who is superintendent of the box factory and who has been in the practical end of box making all his life. The products of A. Wilson & Son, such as finnan haddies, boneless cod, etc., find their way to the market in boxes made by the Wilson Box Company.

Besides supplying a large nailed-up city trade in cases and boxes of all kinds The Wilson Box Company, Limited, do a large box shook business all over the Maritime Provinces, and also find a market for some of their shooks in Quebec and Ontario in addition to exporting them to British West Indies and other countries.

The company's box factory is located at Fairville, N.B., a suburb of St. John, and is one of the largest box factories east of Montreal, employing 65 men the year round. It is situated on the main line of the C. P. R. and within easy team distance of St. John proper. Their extensive lumber yards covering 8 acres of ground are also situated at Fairville.

Among the machines in their factory are the following: 3 planers, 2 band resaws, 6 fitting saws, 3 cut-off saws, 2 matchers, 3 nailing machines, 1 sander, 1 lock-cornering machine, 1 assembling machine, 1 equalizer, 1 jointer, 1 rotary saw especially gotten up for cutting eight-foot logs, 1 bolter, and 1 lath machine.

With a view to turning all their by-products to advantage, the company bundle their edgings, finding a ready sale for all they make to the city trade. They steam on sawdust, shavings and short cuttings.

While most of their lumber comes from their own saw mills they also buy a considerable amount from outside sources. The capacity of the box factory is 4 million superficial feet per year.

The Wilson Box Company's main saw mill is situated on the St. John River, ten miles from their box factory, on the C. P. R. The St. John River is 450 miles long and the territory bordering it contains a vast supply of logs. The sawmill contains a rotary saw, resaw, edger, planer, and lath machine, the lumber being loaded direct onto cars from the saws, when it is shunted to their box factory lumber yards to be stuck out to dry. At this sawmill they also saw a large quantity of special laths, etc., used at their box factory. Here all edgings are bundled and sold in carload lots. The capacity of this mill is 3 million superficial feet, mostly spruce, most of which finds its way to the box factory in the shape of rough edged boards although all superior quality spruce and pine is edged and saved out. The company employ 25 men at this plant.

They also have a portable rotary sawmill at Bonny River, Charlotte Co., N.B., employing 20 men, where they cut about a million superficial feet of logs which are sawn into box lumber and railed to their box factory.

Box plant at Fairville, N. B., of Wilson Box Co., Limited, St. John, N. B.

A newspaper report recently stated that the large sawmills belonging to the Shevlin-Clarke Company at Fort Frances, Ontario, had closed down and were to be dismantled and sold. The report, which was entirely in error, stated also that the European war was responsible for the closing of the mill. Mr. J. A. Mathieu, M.P.P., manager of the company, reports that the statement had no truth in it whatever. The mill will continue to operate day and night as usual until the end of the season. Moreover, the war has made no difference in the company's plans for operating the mills next year, and it will not interfere with the company's logging operations in the woods during the approaching winter. The west and the south, which are the important mrakets for this mill, still require large quantities of lumber, and so long as lumber is used for buildin gpurposes, a more or less active demand will furnish the company with good reason for manufacturing. The mills of the Shevlin-Clarke Company cut nearly one million feet per day.

Five Per Cent. Freight Rate Decision

The Interstate Commerce Commission of the United States recently gave its decision in the application of the railway companies for an advance of 5 per cent. in freight rates. The decision grants an increase of 5 per cent. in the Central Freight Association territory only, but with a number of exceptions. This territory lies between the Mississippi River and Pittsburg and Buffalo. In a list of commodities upon which the commission will not allow any advance in rates lumber does not appear. Inquiry which has been made, brings out the fact that the commission intended to allow the lumber rates in the Central Freight Association territory to be increased.

About thirty-five per cent. of the total commodities in Central territory will receive no advance. It is estimated that the income for the railroads in this territory will be increased about one and one-half per cent., or something more than $10,000,000 a year.

While the eastern and New England lines do not share directly in the advance, they will indirectly profit by it because several of the lines have large mileage in Central territory.

It is believed that in some instances the advanced rates can be put into effect within a month, but in other cases several months will be needed to prepare schedules and put them in operation. Many complicated matters must first be worked out.

The commission discussed many points other than a direct advance in freight rates. Along some lines a general overhauling of business methods was advised, thereby to cut down expense, or increase revenue, or both. In some instances passenger rates need adjusting, in order that this service may be carried on at a profit. The commission expressed its strong disapproval of the policy of increasing freight rates for the purpose of making up the deficiency of passenger service.

The commission recommends that the practice of granting free transportation of passengers and private cars should be further restricted by the carriers. It is pointed out that the private car privilege is greatly abused, and if that extravagance were properly curbed, the roads would be in less pressing need of revenue for other purposes. Eighty-eight roads, for which statistics were compiled, hauled private cars at a cost of nearly three-quarters of a million dollars a year.

The commission calls attention to the fact that fuel, next to wages, is the largest item in operating expenses; that the railroads in the United States report their aggregate fuel cost to be about $250,000,000 a year, and that the cost of coal is increasing, and adds: "Much has been done in recent years by means of mechanical devices and otherwise to reduce fuel costs . . . . but it has been demonstrated clearly that by knowledge and care on the part of employees and the management much greater saving can be made."

The commission recommends a careful review of methods of increasing freight car efficiency, saying:

"Taking the average of all roads in official classification territory for the whole year, the time a car is moving in trains probably does not exceed three days out of thirty, and the car is under load two out of those three days. Furthermore, the cars under load are loaded on an average to only about fifty-eight per cent. of their capacity. The percentages of empty movement and of waste capacity in moving cars have both grown."

The forest areas of the island of Cuba are mainly in the Santiago, and although during the last decade immense areas have been cleared for cultivation it is estimated that about one-seventh of the cultivable area of Camaguey and Oriente Provinces yet remains in primeval forests. While undoubtedly there still exists in the Cuban forests much valuable timber, they have been depleted to a great extent of those valuable woods for which there is a demand in foreign markets, especially cedar and mahogany. The government exercises control over the forests, whether of public or private ownership, and no timber can be cut for any purpose without a permit being obtained from the chief of the bureau of forestry of the district in which the timber is located. Notwithstanding the stringent laws and regulations adopted to prevent the cutting of timber on lands by persons who have no right thereto, the forests on lands belonging to the State have been robbed and in a great measure stripped of their most valuable products. Much of the land classified as forest or timberland has long since been stripped of all timber of marketable value, and at the present rate of extraction with no effort at reforestation, it will not be long until no merchantable timber will be found in the island. There were exported from the district to the United States during the calendar year 1913 mahogany logs containing in the aggregate 4,063,280 board feet, the declared value of which was $243,814, and cedar logs containing 6,750,000 feet, valued at $371,250. The declared value of all other hardwoods in the rough was $47,291. There were also exported to the United States cedar strips used for the manufacture of cigar boxes, valued at $102,254, and 685 tons of lignum-vitae worth $18,181.

Cheap Lumber Not Profitable

Some day, in order to create more jobs for political workers, the government may attempt to gather statistics on the several classes of foolishness, and the number of persons found in each class. The task would last forever, but it is a safe bet that as the figures began to be tabulated, "bargain hunting" would be a close runner for first place.

Man will laugh, or sneer, according to the nature of the beast, at woman for shopping at the "bargain" counter, and then immediately turn around and do the same thing, only do it worse or better; for the woman shopper examines, to some extent, what she buys, while the man buys something he does not see "at a price" and takes a chance that the "pig in the bag" will prove to be in good condition.

If you want a specific material, take lumber. Do you buyers of this material really know how all the bargains that you got averaged up? Is the lumber you buy, at the price you pay, the best investment for your particular operations? I am not qualified to be the judge of your shrewdness in buying, so I'll tell you a few things that I have observed and let you pass judgment on yourself.

Just to encourage you in keeping up your bargain hunting, because I know you will not give it up, I will cite a recent instance that worked to the benefit of the buyer. It happened that a mahogany salesman, of a bonehead type, had booked a substantial order for his product with a manufacturer and, as he was on the point of leaving, casually asked if there was anything more that was required. He was informed that there was, but that it was out of his line. Inquiry, however, brought out the fact that some black walnut was needed, and it so happened that this salesman knew of a small concern that had about two carloads of this material that it had been holding for some time, because the owner knew of no market for it, and did not have the initiative to find one. Now, this salesman volunteered to handle the transaction and get the walnut to the consumer for what it would cost him. The deal was put through and, as a matter of record, the furniture man got a good quality of black walnut at about $10 below the standard market price. That was a "good boy" which might just as easily have been a bad one. Incidentally, you are welcome to your own opinion in regard to the foolishness of the salesman.

Now let us jump to a city where lots of good furniture is made. Some years ago a man owned a small mill just outside the city, and cut more or less lumber from timber obtained from the surrounding farms. While his supply lasted he sold it to some of the local furniture manufacturers, who thought they were shrewd in buying from him at a price lower than the regular lumbermen were charging for the "same" grade of lumber.

This man had all the appearance of a country "jay" and let it not be recorded against these "wise ones" that they were taken in by him, because other "wise ones" in other places have found that the apparent fool was fooling them all the time. Well, in the course of time this man found that the demand was exceeding his supply and he began making demands on the regular lumber yards for some material. His habit was to mix grades and sell them for a high grade. He was such a good "mixer" that hesold the "wise" buyers lumber at from $5 to $8 a thousand more than they would have had to pay for the same grade of lumber had they purchased it from the regular manufacturers.

He had such a trade that for several years after his own supply was exhausted, he was selling to his customers "at a price." He was in the habit of getting a dray, that had no name on it, in the city and paying the driver to haul the lumber from the yard where he purchased it to within a few blocks of the location of his customer. Then he would give the driver a quarter to pass away the time in a near-by saloon while he delivered the lumber, and the wonderfully shrewd buyers of bargains were several years finding out that they were being fooled by the country man in overalls and cowhide boots.

Similar things are happening in every furniture manufacturing centre in the country, and if every "bargain" purchase of lumber could be traced to its consumption in the factory it is a safe bet that there would be more buying for quality and less for price.

There is, for example, a factory in New England which was buying what it considered good material for its operations at $22 to $30 per thousand feet. After an investigation by an efficiency or industrial engineer and following some of his suggestions for a time, it was found that it was more profitable to pay $35 to $45, and in some instances as high as $65 per thousand feet than it was to use the kind of material that it had been the habit to use.

In the use of the cheaper material the waste was from 40 to 65 per cent., while in the higher priced material the waste ran from 12 to 28 per cent., to say nothing of the difference in the time taken in handling operations to work up the material.

We might cite more instances, but why waste time? The probabilities are that we will always have with us the "bargain hunters," those people who are careful not to give anything away themselves, yet are foolish enough to think that they can get something for nothing so far as the other fellow is concerned.

B. C. Statistics for July

During the month of July the timber sales completed by the British Columbia Forest Branch covered 10,553,188 feet b.m., 1,400 cords, and 7,500 lineal feet. The estimated total value was $18,322.97.

The total amount of forest revenue received by the Branch during the month of July was $219,491.05, made up as follows:—

Timber license fees	$166,024.36
Timber license transfer fees	310.00
Timber license penalty fees	1,170.00
Timber lease rentals	6,407.47
Timber lease transfer fees	5.00
Timber mark fees	54.00
Handloggers license fees	825.00
Scaling fees	2,991.29
Scaling expenses	174.36
Timber Royalty	30,155.46
Timber tax	3,179.26
Trespass and penalties	535.91
Timber bonus	6,635.39
Exchange	2.79
Copies of documents	66.23
Timber sales rentals	594.24
Timber sales, cruising	281.20
Timber sales, advertising	74.32
Interest	4.77
	$219,491.05
Collection for the Forest Protection Fund from timber licenses. lessees, etc.	14,062.60
Contributed by Provincial Government	14,062.60
	$28,125.20

Forest protection expenditure during month of July was $45.990.85.

During the month of July the quantity of timber scaled and exported in all districts was as follows:—

Forests District	Sawlogs No. of feet B. M.	Piles and poles No. of Lineal Feet	Rly. Ties Shingle Bolts and Cordwood No. of cords.
Vancouver	53,543.732	260,408	9,136
Vancouver exported	3,362,541	174,985	....
Island	11,170,978	77,608	9,706
Island exported	832,874	5,920	....
Kamloops	16,883	.....	342
Cranbrook	24,006,324	62,670	7,826
Nelson	8,765,779	79,847	5,874
Vernon	2,682,895	51,623	1,437
Prince Rupert	1,198,198	31,182	1,286
Lillooet	.....	389	78
S. Fort George	1,598,748	38,020	1,789
Hazelton	.....	.....	....
Tete Jaune Cache	.....	.....	....
Total scaled all districts.	102,983,537	601,747	37,474
Total exported all districts	4,195,415	180,905	....

The Pulp and Paper Situation

An important effect of the war, which is of much interest to the pulp and paper industry in Canada is the fact that the newspapers of the United States were immediately faced with a threatened shortage of supplies of newsprint paper. This resulted in large rush orders for Canadian newsprint. Another result following closely upon the first was an extensive advance of the price of sulphite pulp. Much of the sulphite used by American paper makers is secured from Sweden and Germany, and as these sources of supply have been cut off the American consumers immediately turned to Canada for stock.

Canadian paper mills are pretty well fixed in this regard in as much as they almost all manufacture their own pulp. In fact, several of the Canadian mills export quite a surplus; and thus they should find an unusually fruitful source of income just now.

In this connection the amount of pulp exported annually by Canada should be of interest. In the month of March last Canada exported to all countries some $673,983 worth of wood pulp compared with $512,423 same month last year. During the twelve months ending March 31st, 1914, Canada's wood pulp exports were valued at $6,364,824, compared with $5,509,544 in preceding year. Of this total the United Kingdom took $1,167,882, United States $4,913,634, and other countries, $283,308. From which it will be seen that our chief wood pulp purchaser is the United States.

Just how the tying up of foreign markets will affect our heaviest buyer of pulp, can be gleaned from the fact that in May last the United States imported from Germany some 16,396,163 pounds of wood pulp valued at $285,732; from Norway, 14,641,327 pounds valued at $300,339; from Sweden, 12,611,044 pounds valued at $225,336; from Canada, 43,224,037 pounds valued at $518,312; and other countries, 2,341,614 pounds valued at $44,137. Or, out of a total of 89,214,185 tons of pulp valued at $1,373,856 imported into the United States in May last Canada sent nearly fifty per cent. Of the remaining $855,544 pulp, Germany, Norway and Sweden are the chief exporters. German commerce is at present almost completely tied up; and Norway and Sweden's shipping are not in a much better shape. So that if the United States' pulp demands are to be satisfied at all she must fall back upon Canada for practically her entire supply.

The importance of larger markets for Canadian pulp in the States, cannot be too much emphasized. Of recent years Canada's wood pulp has been growing in popularity in the States even to the exclusion of some of the cheaper foreign products. This is exemplified by the following table showing pulp importations into the United States during the month of May this year and last:—

May Importations in United States

	1913.	1914.
Germany	$215,848	$285,732
Norway	480,201	300,339
Sweden	307,057	225,336
Canada	344,731	518,312
Other Countries	19,957	44,137
Total	$1,367,794	$1,373,856

For the eleven months ended May 31, 1914, the importations totalled 1,031,135,087 lbs., valued at $15,387,411, which is compared with the corresponding periods of 1913 and 1912, respectively, as follows:—1,053,374,397 lbs., valued at $15,102,158, and 981,662,926 lbs. valued at $13,052,247. In each case Canada's share was greatly in excess of that of any other country—she sent in during the eleven months in each year as follows:—

Canadian Pulp in United States

11 Months	Lbs.	Valued at
1914	474,615,105	$5,328,780
1913	431,749,555	4,607,928
1912	429,550,915	4,353,655

Importations for the eleven months period of 1914 recorded Sweden second with 238,875,852 lbs. valued at $3,935,355; Norway, third, with 164,781,015 lbs., valued at $3,365,172, and Germany fourth, with 135,743,028 lbs., valued at $2,447,193. The remaining importations consisting of 17,120,107 lbs., valued at $301,911, came from several other smaller exporting countries.

The 89 million odd pounds of wood pulp brought in during May, 1914, consisted of 25,846,630 lbs. of mechanically ground wood valued at $191,219; 45,898,527 lbs., of chemically unbleached valued at $775,269; and 17,469,028 lbs. of chemical bleached, valued at $407,368. All of these importations came in free of duty. Similar figures for the eleven months ended May 31, 1914, are:—

Kinds of Pulp Imported

	Lbs.	Valued at...
Mechanically ground wood	323,529,678	$2,497,783
Chemical unbleached	546,408,621	9,110,592
Chemical bleached	161,196,788	3,769,036
Total	1,031,135,087	$15,378,411

The situation in connection with the production of pulp is giving a great deal of anxiety to the paper trade in the United States. The Wall Street Journal, in a recent issue, states that the trade is facing a shortage of pulp, estimated at 1,000 tons a day, as a result of the war in Europe. Advances of approximately 20 per cent. during a period of 3 or 4 days, were recorded in the prices of sulphite pulp, ground wood pulp and other grades. Sulphite pulp was then selling at from $46 to $48 per ton, against $38 to $40 before the war, while ground wood pulp was quoted at $22 to $25, against $19 to $20. An official of the Union Bag and Paper Company, commenting upon the situation said:—"It is estimated that the shortage of 1,000 tons a day can be partially made up by speeding up the mills of this country and Canada. Something like 400 tons a day, it is thought, can be added in this way. Our export business to South America has picked up since the shutting off of European supplies, which of course increases the deficiency in the United States. Aside from wood pulp, however, other articles are imported from Europe, which are necessary in the manufacture of paper. One of these, for instance, is dyes. The situation, therefore, is not altogether as clear as it might seem."

Imports of wood pulp into the United States have been as follows, in pounds:

	May, 1914	11 Mos. 1914	11 Mos. 1914
Germany	16,396,163	135,743,028	151,481,033
Norway	14,641,327	164,781,015	189,951,459
Sweden	12,611,044	238,875,832	283,916,347

Canada ... ...:	43,224,037	474,615,105	467,444,800
Other countries ... :.	2,341,614	17,120,107	37,298,387
Total	89,214,185	1,031,135,087	1,130,092,026

The increase in the consumption of newsprint by newspapers is estimated at between 20 per cent. and 25 per cent. during the last few weeks and there is a great deal of uncertainty as to whether the manufacturers will be able to meet the demand. Export prices of newsprint have been advanced approximately 25 per cent. but there has as yet been no increase to domestic consumers. The cutting off of shipments of sulphate, sulphite, and other grades of wood pulp from Europe, it is thought, will first affect the production of wrapping paper, bag paper, and similar grades in this country, and that the newsprint manufacturers will not immediately suffer from the shortage. Furthermore, the United States has a considerable export trade in newsprint, chiefly to Great Britain, Canada, South America and Australia. The curtailing of these shipments will tend to conserve the supply available for home use.

Protecting Domestic Trade

There is a disposition among newsprint manufacturers to protect the domestic trade. Arthur E. Wright, vice-president and sales manager of the International Paper Company, said: "The newsprint manufacturers of America were never better prepared to take care of a situation such as the present one. A print paper famine in this country is extremely unlikely and would come only as a result of a prolonged war. There is not the slightest indication of a desire on the part of the paper manufacturers to take any unfair advantage of existing conditions. The International Paper Company's machines have a normal capacity of 1,500 tons of print paper a day. It is our practice during the summer months to accumulate a reserve stock of paper large enough to take care of the demand during the late fall and winter months, over and above what is produced in that period. We have a very satisfactory reserve stock on hand to-day. We are shipping some paper abroad as is our usual custom. We will send abroad only such tonnage as we can conveniently spare."

Sixth Session of Pacific Logging Congress

The sixth annual session of the Pacific Logging Congress was held at Bellingham, Wash., from August 27 to August 29 and was very largely attended. A number of excellent addresses were delivered, which were of a very practical and interesting nature. The secretary, in his annual report, recorded steady forward steps in the States of California, Idaho, Montana, Oregon and Washington and in the Province of British Columbia, towards providing educational instruction in logging engineering at the various colleges which were attempting to provide special courses in logging engineering. There had been a sincere appreciation by the faculties of these colleges of the fact that teaching theoretically would never in itself equip young men adequately for the arduous duties of modern logging practice. It was, in fact, almost hopeless for a young man without practical training even to attempt to offer his services in such an intensely practical field of human endeavor. It was the great object of the Congress to help direct the form of instruction in order that young men might be trained along lines that would insure them remunerative and certain employment after graduation.

The secretary then outlined the progress that had been made in the various States along this line. Referring to British Columbia, he said that the logging and lumber interests were co-operating with the moving spirits of the new university to be established at Point Grey, and it was anticipated that adequate provision would be made for teaching forestry and logging engineering at the new British Columbia University. The lumber industry of British Columbia had always been loyal supporters of the cause of logging engineering.

It was absolutely essential that the logging and lumbering interests should co-operate with the educational institutions in order that the most practical form of forestry and logging engineering instruction should be provided. The schools had shown the most earnest desire to help to shape their courses along practical lines, and it only required the advice and support of the lumber industry to render these schools successfully effective in turning out young men fit for logging engineering work. It was most pleasing to note the steady advance that had been made in the progress of forestry instruction, which could be regarded as an omen of good-will between the various educational institutions and the logging Congress in its efforts to standardize the profession of logging engineering. The secretary advised the members of the Congress to visit the colleges occasionally and to ask the faculties to visit their camps. He suggested that, in order to insure the highest possible efficiency in a logging engineering school, it might become advisable for the various States and the Province of British Columbia to join forces and create one school where the science of logging engineering might be developed under practical instructors. The Pacific Coast was the logical place for the establishment of an American school of logging engineering. More than one-half of the standing timber on the North American continent, estimated at 1,600 billion feet was located in the Province of British Columbia and in the States of Montana, Idaho, Washington, Oregon and California, and the physical conditions surrounding its removal demanded the highest type of a logging engineering school. He suggested that the lumbering interests should endow a school of logging engineering on the Pacific Coast with sufficient funds for successful work. It might take a comparatively large endowment, but the school would yield large dividends to the industry through the increased efficiency in logging systems.

The secretary then dealt briefly with a number of the interesting developments in connection with logging which had occurred during the past year. He stated that some progress was to be reported towards the idea of falling timber with the assistance of a mechanically driven saw, the motive power being supplied by steam or electricity. A number of other interesting matters were discussed, many of which were taken up in detail in the addresses delivered before the Congress.

Physical efficiency, the secretary stated, was coming more and more to be recognized as a most potent factor in the success of any operation. The health of the men was of vital importance to every industry. It was with a feeling of pardonable pride that they could note a marked change in the attitude of loggers generally toward this subject.

The Logging Congress had always been a firm advocate of automatic workmen's compensation. It was pleasing to note that since the last congress the State of Oregon had passed an elective workmen's compensation act and the State of California had also enacted a compulsory act. In British Columbia, a commission had been making an investigation and would report at the next session of the Legislature.

A few of the interesting addresses delivered at the Congress are reported elsewhere in this issue.

Personal News of Interest to Lumbermen

Chirman J. L. Englehardt, of the Temiskaming & Northern Ontario Railway, returned from a visit to the northland recently and reported that extensive pulpwood and logging operations would be largely in evidence next season and that a good market and good prices would prevail.

The Commission of Conservation is strongly urging the appointment of fire marshals to work under government jurisdiction so that the responsibility for forest fires can be placed where it belongs. The commission, in a bulletin recently issued, points out that the fire losses in Canadian forests and elsewhere totalled last year millions of dollars.

J. E. Rothery, Forest Engineer who has been carrying on an extensive survey for the James MacLaren Company, Limited, of Buckingham, P.Q., during the past year, reports that no serious fires have come to his notice during his recent trip into the timber districts.

R. D. Craig, of the Dominion Commission of Conservation, who, for seven years, has been a consulting forestry engineer in British Columbia, has opened offices in Vancouver. The commission intends to take an inventory of the timber resources of the Dominion, beginning with British Columbia, and Dr. H. N. Whitford is now engaged in this work in the interior of the Province. The collection of the required data is expected to take two years. The provincial forest branch is co-operating with the Federal authorities. When the information has been secured maps will be published showing the quantities and species of timber to be found in the Province.

G. Gunnersen, principal of the firm of Gunnersen & Company, timber agents and importers of Melbourne, Australia, visited Vancouver recently. The particular object of his trip was to inquire into the possibilities of establishing a direct trade in British Columbia lumber with Australia. At the present time that country is consuming 170,000,000 feet of lumber each year, the chief exporter being the United States, with Norway and Sweden second. Much of the British Columbia lumber that is sent to the Antipodes is sent through agents in San Francisco, and since trade is being built up between Canada and here sister dominion, Mr. Gunnersen is of the opinion that the business might be done direct.

Mr. H. R. MacMillan, Chief Forester for British Columbia, in a recent report, states that there has been considerable improvement of late in the forest fire situation in the interior of the province. In the Okanagan and Similkameen districts the larger number of fires were then under control, and the department was laying off men. In a letter to the Canada Lumberman under date of August 9th, Mr. MacMillan states that he was then on his way to investigate the fire situation in the Cranbrook district. According to meteorological reports the weather in that district had recently been the worst on record for twenty years. There was no rainfall during June, July and August up to date. Many fires had been reported, but men had been on the job at the beginning of each fire, and there had been no lives lost, no timber destroyed and no towns burned.

Prevention of Accidents in the Woods

Simple and Reasonable Regulations Drawn up by a Western Logging Company to Reduce the Risk to Employees

By A. H. Powers*

The question of accident prevention in the woods is one to which I think every logger has given more or less serious attention. It is, of course, a very difficult proposition to safeguard the men in the woods against preventable accidents with the same degree of assurance that you can men working in the sawmill or planing mill; but I believe it is feasible to devise a simple set of rules which will, in a measure, reduce the accidents incidental to logging operations. With this in mind our company has prepared the following simple code of rules for accident prevention in the woods, and the results attained have justified the time, thought and labor in compiling them. Here are the rules:

Foremen and all Employees

It is the intention and desire of this company that its employees at all times be very careful and keep out of unnecessary danger in every manner and form while employed at their work.

No man is to start at any kind of work unless he is entirely familiar with it, acquainted with the dangers thereof, and fully capable of properly performing the work.

Hook Tenders and Rigging Men

1. You are forbidden to stand or work in the bight of any line.

2. You are forbidden to stand or work close enough to any block so that in case the line breaks the end could possibly whip around and hit you.

3. You are forbidden to stand upon or ride any logs as they are being hauled in by the engine or in front of them.

4. You are forbidden to stand in front of a log or on the downhill side of a log after the engineer has been given the signal to go ahead.

5. You are forbidden to give the signal to go ahead until you are sure that every man is well out of the way, and clear of all limbs.

6. You are instructed to very carefully inspect, look out for, and guard against all falling of dry snags or the tops of trees, when logs come in contact with them as they are being hauled to the landing.

7. You are forbidden to fasten a block (either a Tommy Moore or a trip line block) to anything not perfectly sound and capable of holding any strain that can possibly be brought upon it without danger of its giving way or tipping over.

8. You are forbidden under any circumstances to hitch a Tommy Moore to a standing tree. (A standing tree is liable to tip over at any time without warning.)

9. You are forbidden, in oiling the blocks, to go near the line or blocks when the engine is in motion.

10. Always see that your sniper has all limbs cut off close so that there is no danger of the limbs catching a tree or striking a man.

11. Upon noticing any defect in the block, line, or apparatus, immediately notify the foreman, and cease using the same until it is repaired. We desire all blocks, line and apparatus to be kept at all times in first class condition.

Engineers and Firemen

12. Never turn the engine over except upon proper signal from the right man.

13. Watch your engine carefully, and when you find anything wrong about it or any defect, or failure to work properly, immediately notify the foreman and stop using until it is in proper condition to run.

14. Always see that there is plenty of water in the glass, and keep the gauge cocks open.

15. Test all injectors and pumps frequently, and keep them in first class condition.

16. Never change the safety valve after it is set by the Hartford inspectors. If safety valve fails to work properly, immediately stop using the machine.

17. Be sure that your oil pumps and oil cups are always in first class condition, and that oil is reaching the bearings.

18. Keep the oil holes free from cinders, dirt, and stoppages of every kind.

19. Always keep the engine clean, so that you can notice breaks or cracks, and loose or broken nuts and bolts.

20. Wash the boilers clean every two weeks; always keep the ashes clean in the ash pan, and see that the boilers are well filled with water each night before leaving and that your fire is safe to leave.

Loaders

21. You are forbidden to load any car unless the hand brake is set up tight, and if the car be on any grade, that the snub line with a clevis is fastened to the car.

22. When moving cars ahead, as soon as same are spotted, set up all brakes on both loaded and empty cars.

23. Take no chances whatever in working or walking under or near logs lifted in the air with hooks. Never use the hooks to lift a log scaling more than 1500 feet (very dangerous to do so, as the hooks are liable to pull out and fly). Logs scaling over 1500 feet must be rolled onto the cars with straps fastened from the gin pole, and used as a crotch line.

24. You are forbidden to fasten a hook to any portion of a car, except the car bunk or axle (fastening elsewhere dangerously pulls and strains the car).

25. Have the log loads well formed and balanced, and never exceeding 1500 feet on any one car.

26. Never load logs upon the car at the landing until the track is thoroughly cleaned out, and the rail clear of all mud, chips, sticks and other obstructions and all limbs cut off the logs and stamped on both ends.

27. Always see that the chock blocks on the bunks stand straight up, and that there is no slack in the chain.

28. Use no blocks or rigging that are not perfectly sound and safe in every way.

29. You are forbidden to use, or allow to be used, any No. 1 logs for wood, either for the donkeys or cook house.

Fallers

30. Never stand close to trees when falling.

31. Always give plenty of warning to all employees and persons near before a tree is felled.

32. Cut all fir and white cedar (unless very churn butted) less than four feet from the ground, and as much lower as practical to fall it.

Note: All stumps left higher than four feet will be scaled up and charged back to the fallers.

33. Always fall every snag that is in any wise liable to blow over, or fall on you while at work.

34. Always keep a lookout for loose limbs and sailors, and avoid the same.

35. Immediately turn in all tools not in proper shape or repair, notify the foreman, and procure others.

36. Never fall timber up steep slopes; fall it down hill, or sideways; on level ground, or slopes where trees will lie where felled, fall the timber upgrade, and into the standing timber as far as practical, and in a direction straight away from points where landing will be located. Fall the largest trees first, and small trees and cedar on top to avoid breakages.

Buckers

37. Be careful to cut all logs where measured.

38. Block up logs, so that the same will not split while bucking.

39. Always work on the upper side of a log on the side hill, so as to avoid the danger of its rolling on you.

40. Do not work near or under trees having loose limbs or sailors; but first have same cut down.

41. At all times be extremely careful to keep away from lines, and from falling timber. Coast timber is very long and the limbs frequently fly a long distance when felled.

Train Men and Construction Men

42. Haul no logs until you are certain that the load is well balanced, secure and safe.

43. Never stand beside or near a train or load of logs that is in motion.

44. Do not get on or off the cars or engines while in motion; and do not walk over log cars while in motion.

45. Never stand between cars while coupling (logs often extend over the ends of the cars).

46. Be extremely careful to keep out of danger in unloading steel, stringers, and bridge timber; in working around or near pile drivers or trestle work of any kind.

* By A. H. Powers, of the Smith-Powers Logging Co., Portland, Ore. An address before the 6th session of the Pacific Logging Congress, August 27th to 29th.

47. Never get under a pile while it is being raised.

48. Never work or go under trestles when stringers or bridge timbers are being laid upon the same.

49. Immediately report in writing any track or trestle out of repair or in anywise unsafe.

50. Immediately report any defects in engines, apparatus, cars or track.

51. On branch lines always throw the derail behind cars left at landing.

52. On main lines always work under orders; and run only after securing right of way from train dispatcher.

53. Keep train under absolute control; run slow and be very careful in switching and other work in foggy weather. See that your lights and lanterns are in good condition.

54. If you know, or suspect, any physical defect or inexperience in yourself or fellow-workmen, immediately report the same to your superior, or to the company.

Cooks

55. Feed tht men good, wholesome food, in abundance, and be attentive and obliging to their wants.

56. Do not throw away any good provisions, and immediately notify foreman of any laborer or employees detected in doing so.

57. Make all complaints to the foreman as to lack of provisions or equipment, or unsatisfactory help. Keep your camps clean and always in good sanitary condition.

Foremen

58. Always thoroughly instruct each man as to his work and the dangers thereof, and secure his consent before placing him upon any job involving danger.

59. Immediately discharge any habitual drunkard, or man who comes to the camp in a drunken condition.

60. Immediately discharge any man who brings liquor to camp.

61. Treat the men courteously and fairly, and see that the clerks and cooks are courteous and fair and that the men are fed in the best possible manner. (The company intends at all times to furnish the best, wholesome provisions that the market affords).

In General

Any man having a grievance should take the same up with the foreman at his camp, and if the same is not satisfactorily adjusted, should then report the whole matter in writing to some general officer of the company.

A Few Hints on First Aid

I.

Sterile bandages, antiseptics, text books upon First Aid to Injured, medicines for colds, bowel complaints, etc., are kept by each time-keeper.

II.

Don't give whiskey in cases of shock, fainting, or severe accident. Give black coffee. If necessary send bottle of black coffee along with patient to hospital.

Cover patient with plenty of blankets and apply heat to body, viz., hot bricks or stove cover wrapped in cloths, or bottles filled with hot water.

III.

All minor wounds such as jaggers, scratches and skin abrasions, first cleanse with soap and water; second, dry; third, apply tincture of iodine to wound and area around it. Fourth, apply sterile bandages.

IV.

Larger wounds, cleanse with soap and water, apply tincture of iodine and sterile bandages. Then report to company surgeon to have wound treated.

V.

Contusions, bruises and sprains, slight ones are best treated by rest, hot applications and liniments, but have all severe cases examined by company surgeon to eliminate possibility of a fracture.

VI.

Scalds and Burns

Apply olive oil, cylinder oil or vaseline; then apply bandages.

Fractures

Preparations for transporting fractured arms, forearms, hands, fingers, apply padded splints made of boards, bark or paste board, several layers, to anterior and posterior surface, using bandages, rope, twine, etc., to hold in place.

Thigh

Leg and thigh, strap board or hewn pole to body and limb long enough to reach from arm pit to heel.

Leg

Use pillow or blanket rolled from both ends or padded boards strapped on.

Pelvis, Spine and Skull

Make patient comfortable and transport quickly and gently as possible.

VIII.

Hemorrhage from extremity (arm and leg) slight oozing from wounds usually controlled by sterile bandages or dressings wrung out of hot water and placed in wound.

Uncontrollable Hemorrhages

Place tourniquet made of small rubber hose, handkerchiefs, suspenders, bandages or rope, between wound and body. In case this does not check all of bleeding apply another tourniquet between wound and end of extremity.

Fire Prevention Through Creation of Public Sentiment

By E. T. Allen†

I have been asked to make a report on the progress of co-operative fire prevention since you met last year. It must be largely a record of perfecting details, rather than of radical discoveries, because the Pacific Northwest is so far advanced in fire work that general principles seem to be pretty well established. Last year was about a normal one as to weather and hazard, such as once would have brought much loss, but out of nearly 25 million acres guarded by our allied patrols only 2,800 acres of merchantable timber, or an 80th of one per cent., were burned over. The actual loss was but 583,000 feet, or about a thousandth of one per cent. of the timber protected.

This proves that the system will meet the normal year. What we are after is to do this still more cheaply and surely and, more important still, to be able to meet the abnormally bad year which is sure to come sometime. I shall touch upon this shortly. In the meantime let me remind you that the Western Forestry & Conservation Association (for which Mr. Allen occupies the position of Forester) has come to be so generally recognized as representing western forest management along all progressive lines, as well as in fire prevention, that some of its other work may be of equal interest to the Logging Congress.

As our local constituents have become stronger and local affairs have reached a better footing, it has seemed to our central organization that it should devote more and more time to giving western forest interests a national voice in all matters affecting the industry either directly or through example. Consequently we have participated increasingly in all eastern movements affecting forests and lumber, taxation, etc., until our place in all deliberations of this kind is conceded. By being scrupulous to be fair and equally considerate of private and public interests, working only for the most just and permanent basis of forest industry, our influence has become very great.

Returning to fire prevention, we have as usual kept this subject before the public by a number of educational devices.

The "Putting Out the Campfire" picture, an impressive colored picture showing a woodsman extinguishing his fire before leaving camp, has been placed on practically every schoolroom wall in the forested Northwest and in a smaller size been taken home to every family in important territory. It has also gone to every newspaper office. This picture made a big hit. In many cases teachers used it as a composition subject.

A cartoon poster using a clock face to show the danger season and provide a calendar, has been distributed to the number of 20,000.

We have sent out 10,000 sequence signs, six in a set and each bringing out a different appeal against carelessness with fire, designed to be posted along trails and roads so travellers after reading one or two will watch for the next. These are very popular.

Ranking with our public school devices as among the most far-reaching things we have put out, and comparatively inexpensive, are the slides we have put before the public in every Northwestern town that has a moving picture theatre. In the larger towns we have used several of the best houses, also the cheaper places patronized by laboring men. The first set consisted of three slides. Two more went out when the fire season was more advanced.

Tin cups bearing fire material in the bottom were supplied constituent associations for distribution by wardens to road gangs, camping parties, etc., and for placing at springs.

By arranging for joint orders, cheap rates were obtained on about 20,000 whetstones with fire cautions on the back.

Two associations were furnished rulers with appropriate printing.

All railroads were reminded to repeat fire material in the Summer folders and resort "literature."

A magazine supplement syndicate supplying over 50 Northwestern papers with a weekly extra runs special fire and lumbering ma-

† Address delivered before Sixth Session of the Pacific Logging Congress, August 27th to 29th.

terial whenever we wish. Also the railroad magazine, "Pacific Semaphore."

About 800 newspapers receive monthly bulletins on fire news and precautions.

State school authorities were provided with forest protective material for Arbor Day use.

Negotiations are under way with cartridge manufacturers to enclose fire precaution slips in cartridge packages and for featuring the subject in 1915 calendars.

The United States Forest Service has two complete framed exhibits of all our publicity devices which it displays at suitable eastern gatherings and expositions, calling attention to our work.

The cost of the above projects has been partly reimbursed by sales of material in Canada and to state forest departments. British Columbia obtains practically all its forest publicity material from us and we sell a considerable quantity in the east.

I have not thought it necessary to mention the matters of clearing-house facilities between local organizations with which each is necessarily familiar, or our extensive correspondence with agencies of all kinds all over the country, including forest and tax officials, bonding and investment houses, protective organizations, etc., in which the affairs of northwestern forest industry may be promoted.

Our constituent patrol associations have added few absolutely new features to their field methods this year, for they were already up to date, but every season sees the system strengthened. Telephone and trail building has progressed, adding to the efficiency and economy of patrol. Lookout stations and their equipment with telephones and fire locating instruments are proving of great value. Slash burning before the danger season began was given unusual attention. Co-operation with state and federal systems was perfected beyond that of previous years. There is increasing co-operation by logging operators. It is along this line that the greatest advance is probable in the near future. I confidently expect to see every logging operation conducted under a rigid fire plan, every detail of which is considered quite as important as keeping up the log output.

Finally, let me remind you that we approach a legislative season in which the watchword will be economy and lower taxes. We must all be vigilant to protect our already inadequate legislative support of this work, which is essentially insurance of the northwest's most important industry and source of community revenue. No economy can be effected here without risking thousands of dollars for every dollar saved.

Yarding and Logging By Machinery

A Brief Consideration of the Problems and Costs in Connection with an Important Logging Method

By J. P. Van Orsdel†

For the sake of brevity, let us assume that the timber tract under consideration has been properly opened up to the best advantage, with main line, spurs and branch line railroads, and that we are right up to the proposition of yarding and loading.

In a great many ways, every other condition being normal, the expense of your entire operation depends to a very great extent on the judgment used in laying out and carrying on the yarding of your logs—in that so many of the other phases of your work are resultant or dependent operations with resultant or dependent costs.

Falling, bucking and railroad construction costs are independent of any effect or results from the yarding and loading, but all other phases of your work are dependent on the efficiency with which the yarding and loading is carried on. Ground yarding and skidding is the method used in 95 per cent. of the Western camps, and this is the method I am going to discuss and leave others to give their information on overhead systems. I do not mean by this that the overhead system or systems have not the merit of other modes of logging, for under certain topographical conditions they are the only practical means of getting the timber to the market. I am most certainly of the opinion that the use of both methods in some camps would be the proper and economic course. Whichever logging machinery manufacturer puts on the market a practical machine for say, $5,000, that can be used to equal advantage for an overhead or ground system of yarding, will meet the needs of a great many operators. The reason the loggers have not gone more into the overhead system is because the initial expense at the present is so great, and if the sky line machine does not work out satisfactorily on their property they have an expensive piece of equipment on their hands which at least for a time would have no value.

In timber on comparatively flat ground where the maximum yarding distance is not in excess of 950 feet and the difference in elevation does not exceed 75 feet, the largest log does not exceed 1,000 feet board measure, and the species are red fir or pine, then a 10 x 11-inch compound-geared high-speed yarder of any standard make would be the best machine to try.

In timber on rolling ground where the greatest yarding is not in excess of 1,000 feet, the difference in elevation over the average yarding area does not exceed 150 feet, and the maximum log does not exceed 5,000 feet; then a 11 x 13 compound-geared high-speed yarder of any standard make would be the best machine to use.

For conditions which would be more severe than above stated—I would recommend the purchase of a machine equipped with 12 x 14 engines compound-geared of any standard make. All machines should be equipped with high pressure boilers of large capacity. All yarding machines should be equipped with three drums. For loading purposes a machine should have three drums and 8½ x 10 engine to give the best results, although a lighter can be used in small or light timber.

From past experience I would recommend the following size of main yarding lines and trip lines:

For 10 x 11 yarders a 1¼ main line and 9-16 trip line. For 11 x 13 yarders a 1⅜ main line and ⅝ trip line. For 12 x 14 yarders a 1½ main line and 11-16 or ¾ trip line.

While some of these sizes may seem large, I have found by keeping records on lines that the additional cost of the slightly larger cables is more than paid for by the increased amount of output by each line. The third drum on the yarder should be equipped with 1,500 feet of ⅜-inch line to be used to put the trip line out with.

All the above machine and line sizes are based and figured when the uphill yarding system is used, which is generally admitted as being the most practical way of carrying on a ground yarding operation.

During the early part of the year 1912 we had the best opportunity to prove to our entire satisfaction the practicability of the uphill yarding system and its advantages over logging down hill.

The test was made with the same machine (a 11 x 13 Mogul yarder) hook tender and nearly the same crew throughout. The topography of the country and the stand of the timber was identical. As the areas were adjacent we logged the one area first down hill and immediately followed by the uphill work. If either scheme had the advantage, the downhill scheme was favored; because the hook tender and the engineer were inclined to think that the machine was not large enough to do the uphill work. On the area that was logged down hill we were 31 working days yarding the show and the total production was 1,725,153 feet, or an average output of 55,650 feet per day. On the continguous uphill area we were 24 working days yarding the show and the total production was 2,364,126 feet, or an average output daily of 98,505 feet. The average stand per acre was approximately 90,000 feet.

We found that our machinery was a little light and we have since replaced the yarders with 12 x 14 compound geared yarders which are just right for our service.

When the butt chain lead block was placed on the market it solved a great many problems and, while this piece of equipment is still a necessary adjunct to all well-regulated and equipped camps, it has in the same kind of camps been replaced to a great extent by the yarding or stump rollers. This device allows for the same speed with less friction and also does away with the service of one man. By placing three rollers on the arc of a circle, it is possible and practical to log directly back of a landing or rollway without the use of a lead block.

I find that where 75 logs are handled per day of 10 hours that the lost time will amount to one minute for each log, or 75 minutes a day. Where the production of logs ranges from 125 to 150 per day the time putting each log through would be less—still the total time lost per day would be 75 minutes. Using 75 minutes and 75 logs as a basis, the average length of time consumed in yarding each log would be eight minutes, or at least the output can be increased between 9 and 10 logs per day by the use of rollers instead of lead blocks without taking into consideration the one man less in your ordinary yarding crew—on this basis it will not take very long to pay for a full stock of stump rollers.

What to my mind is of utmost importance in carrying on a successful operation is that our yarding and loading operations be carried

† Address delivered before Sixth Session of the Pacific Logging Congress, August 27th to 29th

on at full capacity each working day in the month and for the full 10 hours each. To do this successfully each camp must be equipped with an extra yarding and loading machine which can be moved and set ahead at the next landing prior to the time that the crew which is to do the yarding has moved from their last rollway. In a camp where four or five sides are operating simultaneously, it would be necessary to have a small crew for this purpose; but in a two-yarder camp the same crew that does the clearing of right of way and builds the landings could make the moves. After the machinery is placed—the hook tender who is to yard the area can take the above mentioned crew and place the lines out so that when they are actually ready to occupy the show, the lines are out, the steam is up and the only time lost to the yarding crew is in moving the small rigging. In our camps we have made these changes a number of times in 30 minutes from the time the last log is pulled onto the rollway until the first log is landed on the new rollway.

It is not always the best log getting hook tender that is the best donkey mover, and it has been my experience that men who are engaged in yarding and loading are not much good when it comes to doing work which they consider is out of their line, while men engaged for the purpose do not expect anything else and are not such high-priced labor.

The topographical conditions and stand per acre have a material bearing on what should be the maximum yarding distance. The topographical features must and will make changes in any arbitrary rules you might make with regard to this phase of the game; with regard to the stand per acre I have arrived at the following figures as a general basis for calculations in laying out a logging show:

20 to 40 M. feet timber per acre, 1,200 feet maximum yarding, distance.

40 to 60 M. feet timber per acre, 1,100 feet maximum yarding distance.

60 to 80 M. feet timber per acre, 1,000 feet maximum yarding distance.

80 to 100 M. feet timber per acre, 900 feet maximum yarding distance.

100 to 120 M. feet timber per acre, 800 feet miximum yarding distance.

120 to 140 M. feet timber per acre, 700 feet maximum yarding distance.

140 to 160 M. feet timber per acre, 600 feet maximum yarding distance.

160 to 200 M. feet timber per acre, 500 feet maximum yarding distance.

The use of road donkeys for reaching timber which cannot be brought within direct yarding distance of the railroad is a subject in itself, and I will not try to go into a discussion of that matter at this time.

As you all know, the cost of yarding is controlled by a great many factors, but with proper machines which are suited for the country to be logged, the use of the uphill yarding system, stand per acre has more effect on the cost than any other factor. I have compiled the following figures from my personal experience as being standard costs of yarding and should only show slight changes for other conditions which you might encounter. These figures are based on an average log unit of 1200 feet board measure.

20 to 40 M. feet timber average per acre, yarding cost 64c per M.
40 to 60 M. feet timber average per acre, yarding cost 60c per M.
60 to 80 M. feet timber average per acre, yarding cost 57c per M.
80 to 100 M. ft. timber average per acre, yarding cost 54c per M.
100 to 120 M. ft. timber average per acre, yarding cost 51c per M.
120 to 140 M. feet timber average per acre, yarding cost 48c per M.
140 to 160 M. ft. timber average per acre, yarding cost 45c per M.
160 to 200 M. ft. timber average per acre, yarding cost 42c per M.

I have checked these figures up very carefully and find that actual and practical experience will bear them out.

The proper type of rollway or landing is of vital importance to the carrying on of a fast yarding and loading operation.

The size of lines for loading would of course be controlled by the size of the timber to be loaded.

The cost of loading is a dependent or resultant cost and depends entirely—or to a great extent—on the daily production or output. The cost will vary from 12 cents to 18 cents per thousand.

Collecting as a Diversion

"There is one town in my territory," said the lumber salesman, "where I always plan to stay at least a day for a visit with my friend the Old Timer. He has been many years in the lumber business, has worked with his eyes open, has been a good observer, and has an unfailing lot of stories and reminiscences. He has succeeded to the extent that he can now look upon his business rather as a diversion than an occupation and can take time to visit with his friends, one of whom I am privileged to be. I usually find him in the back office, frequently reading his lumber journal," says G. L. D., in The American Lumberman. "The last time I called he was cleaning out his desk and he held up to my view a bundle of old letters. 'Say,' he said, 'you ought to have been here this morning. I took the old road burner out for a collecting trip. Collecting is funny business. The case this morning was easy. But I've had some that made me think twice before I got the kopecks. I nearly always got 'em, though, even if it did take scheming some times. These letters are nearly all on the collecting subject, and they just now recall the first case I had of a difficult account.

"'In the time that I have shuffled boards I have been line-yard manager, auditor, individual owner and have combined hardware and all the side lines in a laudable endeavor to supply people what they want in building material, at the same time trying to save a little velvet for the company. The collection I am thinking of now was soon after I took the management of my first.

"'In those days it seemed to be the policy of the line yard owners to shift men as soon as they became acquainted in the town. Don't know why, but I got three moves—promotions they called them—in such quick succession that at one time I had three best girls—yes, got one of 'em yet. The man I succeeded at one place had sold a barn bill to a hoss trader named Call. He was about as dependable as the hosses he picked up on his rounds through the country. It was Call's custom to rig up a camping outfit, load it into a covered wagon, trail all the derelict hosses he could find to the wagon, then the others to their tails, and, followed by this whip-cracker aggregation of ringbone and spavin samples, follow where the road led, as long as he could scent out a trade, depending on the "boot" taken in the swaps to buy provender for himself and hosses. He failed to pay, of course, and the agent failed to secure. He was fireproof against any collection laws and the bill had been on the ledger for a year or more.

"'Just before I went there Call had been away on one of his trading trips and had been gone nearly two months. The retiring agent had mailed him forty post card duns, sending one each day for the forty days. When Call got back and found them he was furious. He marched—he paraded to the office to wipe up the floor with the offender. He found me, an 18-year-old boy, and too insignificant for him to vent his wrath on. He was so sassy about the company, the lumber business in general and the former agent that I wanted to kick his slats in; but my judgment controlled my valor while I told him I would receipt him for any amount he wanted to pay on account. He informed me he didn't want to pay anything on the account and never intended to. Also, that he would see the whole outfit in hades rather than pay any of the bill. I told him that while he felt that way about it now I thought he would change his mind and pay me.

"'This state of affairs continued for several months. When he would meet me he would frequently take the opportunity to redeclare his intentions and I always answered that I still thought he would pay me some time.

"'One day I met him and asked him for ten dollars as I needed it to make up the amount of freight I had to pay. To my surprise he gave it to me, peeling the ten off of a roll of bills. He again assured me that this was the last I would get.

"'Besides the amount due on the lumber he owed some $200 on his house, and I learned that he paid that amount the next day after paying me the ten, and learned also that he was about strapped.

"'About the last of the following October he was making preparations to go on another swapping tour. He was to start the first day of November when he found he had no harness. Bridles, collars, everything was gone. He tried to borrow; then to buy on tick—nothing doing. In this dilemma he came to me and actually had the nerve to ask me to guarantee the payment at the harness shop. I regretted I could not do this, but offered to give him his account, now $60, and $20 cash for a hoss he had—a really good one.

"'He protested vigorously, declaring it was as bad as stealing the hoss from him, but his need was great and he must have the harness, so we traded.

"'Now,' said the Old Timer, 'if you've been listening to what I've been telling you, you're wondering what sort of a set of harness he could get for $20. Well, he got a good outfit. For, mind you, harness has advanced more than lumber since then. As most of the high cost of living we hear so much about is charged to the lumbermen, it is probable that the advance in lumber prices has boosted the prices of tan bark which in turn has—but this is not telling the story.

"'Soon's I got the hoss I took him to a liveryman and told him to sell him as soon as he could get me net $100 above his charges and the feed bill. He sold him in a few days and when he paid me the hundred said he was satisfied with what he got. I was, with what the company got, as they were $20 ahead for interest.'"

Merchandizing of Lumber

By J. J. Rockwell*

The lumber industry is a big industry. It does things in a big way. It deals in a big product. It deals in that product in great quantities. It always talks in thousands and millions. A 16-foot 2 x 4, when a man wants it to hold up a flower box on his porch or in front of his window, is quite a item to that man, but the lumberman is so used to seeing and thinking and talking of 2 x 4's in millions of feet that to him one poor, lone, single 2 x 4 is no more than a toothpick.

The remarkable part of this point of view is that all these millions and billions of feet of lumber, requiring the activities and the energies of something over a million men to make the market in which hundreds and hundreds of millions of dollars of capital are invested, this tremendous product which gives foundation to our railroads, spans our rivers with bridges, houses the greater proportion of our population, all of it in existence, and all that ever has existed, and all that ever will exist, has been or will be produced by little seeds, of which the tiny acorn, as big as the end of a man's thumb, is a fairly large specimen.

It is perfectly natural for the mind of the lumberman, whether he be a holder of lumber, a maker of lumber, or a seller of lumber in a comparatively small retail way, to look at his product in this fashion. It is a big product—even a little dinky, retail yard in a small country town requires considerable ground therein for its stock. Every time a little bit of stock is moved, a wagon or freight car must be called into service, and where it is moved in even moderately large quantities with rapidity and facility, we have to use power of some kind for moving it.

Consequently it is natural, further, that the lumberman should look on the marketing of his product from this same big standpoint. If I go around to talk to a retail lumberman about getting a little stock of boards for a window flower box, he has not the slightest interest in me and rather feels that I am a disturbing element and shouldn't come around bothering him.

The lumber manufacturer, who happens to be approached by a consumer with an inquiry as to where this consumer can get a small supply of some of the kind of product which the manufacturer makes, feels very much bored about it, and the mere buyer is apt to receive a rather cold reception.

To a philosopher it would seem logical to assume that man whose entire stock in trade had grown from a few tiny seeds would be inclined to think that a large volume of business might grow from a few tiny seeds of demand.

Selling Little Things

I present Exhibit A—just a common, ordinary match such as we light our cigars with from three to twenty times a day and throw away.

I have not the slightest doubt that the first lumber manufacturer who was approached on the idea of furnishing a little stock of lumber for the manufacture of matches was probably inclined to believe that the match man was a dreamer, if not totally crazy.

I have not been able to get any definite statistics as to the amount of lumber used in the manufacture of matches to-day, but we all know that it runs into very respectable quantities.

To recur to my illustration of my being in the market for lumber for a window flower box, let us suppose that instead of being cold, haughty and repellant, the lumber retailer whom I approached on the subject had been cordial and interested, and had asked me whether there were not a number of other houses in my neighborhood which ought to have window boxes, and had made a suggestion to me that this idea of growing flowers around the house was a fine thing. That I ought to advocate it with my neighbors, so that the whole neighborhood might be beautified. Suppose the dealer had gotten me so interested along this line that I would have become fired with enthusiasm, as a missionary, to go out among my neighbors and point with pride to my flower boxes and tell them to go and do likewise. Mr. Retailer might even have taken a little trouble to advise me to be careful to see that my boxes when made were properly bored to give sufficient drainage, and have told me that if I succeeded in getting my neighbors to accept my viewpoint to be sure and tell them that he had the kind of lumber that they needed and that he was a very accommodating merchant who would take care of their wants. It does not seem such a very far-fetched conclusion that a retail dealer proceeding along these lines, and even going so far as to send out a few circulars or do a little advertising in his local newspaper on this subject, in the right manner, might very easily dispose of a carload or two of lumber every season, and it would be common lumber, which would be nice for the manufacturer.

The wood paving block, considered as a single unit, is a very small item—it's just a little thing not much larger than a brick—and yet I understand that in one species of lumber alone in this country over a billion feet of material is sold for this use, but how many lumbermen think of the further extension of the paving block idea? Does it ever occur to a retailer to study up on the subject of these blocks for the paving of factories, machine shops and foundries where the value of this product has been definitely and conclusively proven, and argue them into the idea of using paving blocks for that purpose? Does he ever consider advertising to the farmers of his district the extreme value of creosoted wood paving blocks for use in flooring their barns and dairies? Is there any doubt that if the owners of such properties were once acquainted with the eventful economy and durability of wood blocks for such use, with their sanitary character, with the advantageous effect of wood block paving for their animals, that they would not only be willing but glad to utilize this product?

Is it not worth making an effort to get such a market started? A few properties paved in any district will act as the little seeds from which the big demand will grow.

This as I see it is the crux of the question in the marketing of lumber. The great crying need is for the lumber industry—and by the lumber industry I mean not some of its parts but all of its parts—the timber owner, the manufacturer, the wholesaler and the retailer, to plant these seeds in the minds of possible new consumers in order that the use of the product and its market possibilities may grow.

Conditions Have Changed

In the days not very long gone by lumber was an absolute necessity. You could not build a house, a barn, a factory, a church, a school, a pig-pen, or a corn-crib, without the use of lumber, and you had nothing but lumber to use. That condition is changed; there are other materials which are bidding for the business, successfully bidding for it, and in some cases and in some uses they have become the standard, and properly so. They have proven their right to certain functions of use developed by new conditions, and we are glad that they are here. In the days gone by we did not feel the needs that we feel to-day; we did not have the great centres of civic and industrial life. Our communities were constantly spreading. There was plenty of land—available land. As a merchant's business grew rapidly, he put on an ell to his building and extended it out into the next lot. You can't do that to-day in the large cities, or any fair-sized town—the building has to go up into the air, and it has been forced to go higher and higher, and the sky-scraper, a product of modern invention within the last thirty years, is the result. You could not properly use lumber for that. The result of congestion in our industrial life has been to produce this new type of structure, which takes the place of the spread-out type which existed when land was available at all points.

Where we used to build forty buildings, one-storey high, and build them of wood, we now build one building forty storeys high, and build it of steel and tile and concrete, and necessarily so. The effect is, of course, that the lumber industry has lost a demand for material to be used in the construction of forty buildings.

But building is not the only thing that lumber can be used for. I again refer to Exhibit A.

New Uses for Lumber

All around us we see large businesses being established for the manufacture of new products of which the raw material is wood. But these things are being invented and their sale promoted by other interests, and not by the lumber industry. Surely if this great industry go behind a department of research and investigation and invention and determined new places for the use of the product it would have a tremendous effect on the industry, but you would have to tell people about them. Merely inventing a thing does not sell it; merely making it does not sell it. You must have demand to make a profit.

I am not a lumberman but I have in mind to-day three things for which the use of lumber has never been promoted, and I am convinced that the slightest investigation would show tremendous possibilities for the sale of lumber in all these directions if the material were promoted for these purposes.

Being an advertising man you would naturally assume that I would speak entirely from the advertising standpoint, or rather what some men consider as advertising—that is, merely the use of the printed word and picture. On the contrary, I say that advertising can produce maximum efficiency only when it is supported and aided and co-operated with by every selling force in the industry.

Advertising does nothing but sow the seed. If given time of course it will eventually produce the crop, but it will produce that in infinitely less time, with infinitely greater results if the ground is carefully cultivated and tended, if intelligent, intensive cultivation is given by all the sales forces of the industry. To sum up, then, I would say, from the standpoint of the advertising man, considering the lumber industry, do not despise small things, they will grow.

The little break in the dike of inertia and ignorance, especially if

*Address delivered recently before the National Lumber Manufacturers' Association.

it is helped and broadened by intelligent effort, will produce a flow of demand and of profitable selling and merchandising.

The greater difficulty that is met with, in attempting to formulate definite methods for this result, is to secure intelligent, enthusiastic, active co-operation from all sources. The lumber industry is so big, so widely ramified in so many different channels and directions that it cannot be educated to these things in a day, but when once so educated the market results will be most beneficial.

Merchandizing of Lumber from the Standpoint of the Salesman

By B. M. Nelson

The subject on which I have been asked to address you is one which, no doubt, all of you, like myself, know something about in a general way, but when it comes to passing upon the true merits of the substitutes, or how to combat the infringement upon the interest of the lumbermen, possibly few, if any of us, have given it enough consideration even to solve the problem in our own minds, to say nothing of the action necessary to make our ideas effective.

There is so much to be said on the subject that I can only dwell upon the surface, so to speak, as time will not permit of my going into details.

We have made improvements in the methods of logging and manufacturing, but little or no advancement or improvement in merchandising or in promoting the use of our product. Practically the only change is, the manufacturers are selling more lumber direct to the retailer, and have added some expense by increasing the number of salesmen. We have given scarcely any thought to the real merits of our product. We have little or no data, intelligently compiled, to pass out to the public substantiating our claims as to the merits of wood products. The cypress manufacturers, during the last year or two, have done more than any other wood manufacturers in this direction. How many lumbermen can go before the public to-day and defend the merits of their product? We have given but little consideration to what the buyer does with the lumber after the sales are made and the contracts completed; we have given but little attention at the time of making the sales to whether the buyer was buying a quality of lumber best adapted for the purpose intended. The thought, apparently, has been to make the most profit we could out of the order. And in many cases, if the manufacturer has found that the buyer would accept a quality of lumber inferior to what his order called for the lowest acceptable grade or quality has been shipped, regardless of whether or not it would answer the purpose. As a result, a quality of lumber has often been used for purposes for which it was unfit, and because of this abuse the use of lumber has been condemned.

Many of our troubles are due to the methods of some wholesale lumbermen who have no interest in timber, and the success of whose business is measured wholly by the profit as between the purchase price to the manufacturer and the selling price to the retailer or consumer. Competition, and the lack of knowledge of the users of lumber have caused such wholesalers as this to sell one grade to the buyer and buy a lower grade from the manufacturer, and take their chances on having the purchased grade accepted. Many methods are resorted to in accomplishing this end, some of which have been dishonest. As a result, the use of lumber, for many purposes, is suffering, and it has given the substitutes greater opportunity for their introduction.

I believe the manufacturers should give more attention, first, to seeing that the architectural engineers and users of lumber throughout the country are better educated as to the true merits of each wood species in such a manner as will cause them to use the quality or grade of lumber best adapted for the purpose intended; second, when the orders are placed, see that the manufacturer or wholesaler furnishes the grade and quality of lumber called for on the order. Heretofore, our associations have devoted their energies more to protecting the manufacturer against unjust claims, leaving it to the buyer and consumer to protect themselves. I think it is just as much to our interest for the associations to see that the buyer and consumer of lumber get what they buy.

Encroachment of Substitutes

Years ago, when stumpage was not worth anything, and lumber so cheap, the substitutes had little or no chance to enter into competition, but now that the forests are being depleted and the price of stumpage has advanced, there is greater opportunity for their encroachment, and the manufacturers of substitutes are taking advantage of it. Having had to create a market for their product they have educated themselves along lines in which we lumbermen are deficient. Lumber having been used so long we have taken it for granted that the people know all about its uses, quality and classification, and, hence, have not considered it necessary to spend any energy trying to educate them. But the inroad made by the substitutes in the last few years is causing us to realize the seriousness of the situation. I do not wish to take up your time enumerating all the changes that have come about, because no doubt, you are familiar with the many uses lumber has enjoyed that have been displaced by substitutes. About the only articles which seem to enjoy immunity are sounding boards in pianos, axe handles and ox yokes.

The array of arguments being put forth by the substitutes would cause a Shakespeare or Webster to turn green with envy. In some cases there is merit, but many of their contentions are not substantiated by facts. And while false contentions being made by them at present may react against them later on, it is hurting the lumber business now, and many of us will not be interested in what happens later, because our stumpage will have been used up.

How to overcome all of these difficulties and prevent the substitutes from imposing further upon us is a problem too difficult for me to solve; but I believe, if the different associations, would appoint a number of committees and rally to their support, call upon our neighbors who never attend any meetings, get them interested and working with us in some direction and attending meetings, hearing the reports of what other committees are doing, we would soon educate ourselves and work up enough enthusiasm to overcome our troubles.

Nature has favored the lumbermen in many ways. The depleting of the timber supply gives a natural advantage that practically no other industry in the world has. But this advantage has caused us to overlook the importance of promoting our own product, which has given the substitutes the advantage, they having had to create a market for their product.

A Matter of Co-Operation

I figure the greatest good can be accomplished through the co-operation of all wood manufacturers, because, in the end, our interest is largely the same. It is difficult to increase the consumption of one wood without interfering with or decreasing the consumption of another; and the increase in the consumption of one wood at the expense of another will eventually react against wood products as a whole. For instance, the yellow pine manufacturers could reduce their prices and increase the consumption of their produce so long as the other woods would keep up their prices. But to do this would cause the manufacturers of competing woods to pile up stock, and unless the natural conditions of the country would bring about an increased demand for lumber, the competing woods would eventually lower their prices to meet the situation, and the yellow pine manufacturers would soon find their territory no greater, but the price reduced.

There are, however, many conditions and problems concerning the consumption of each wood species that require special treatment, and I should like to urge that each lumber association or manufacturer interested in any wood species appoint committees and devise means to protect our industry from infringement by the substitutes, and promote an increased demand in every direction, not at the expense or sacrifice of some other wood now being used, but in some new direction.

I should like to urge the appointment of a national bureau for the purpose of making scientific research in any direction which may be for the general benefit of all wood producers, and let the committees of the different associations, working on problems which affect all wood species, co-operate with the national bureau so as to avoid friction as between the different wood species, and try to work together with as little conflict as possible.

This bureau should work through and in connection with the laboratory at Madison, and all other scientific research laboratories and schools throughout the entire world. The government has established a laboratory at Madison and has invited us to aid and co-operate with them, but so far as I can learn we are not giving it an opportunity to be of any benefit to us.

The retailer, not being interested in stumpage, is naturally not so much interested in the future use of lumber as the manufacturer. It makes little differenec to him whether he sells lumber or substitutes. Of course, if the substitutes are something he can not well handle, he will devote more energy toward promoting the use of lumber.

The silo business has proved to us how our lumber merchants compare with those in other lines of industry in promoting their product in some new direction. Most of the silos are being constructed of wood, yet, I dare say, 95 per cent. of the wood silos constructed to date have been sold by silo manufacturers direct to the consumer through some other than a lumber dealer, although the dealers in most cases have been given first chance and urged to go after the business.

So we can not rely too much upon the retailer to promote the consumption of our product. However, we can not afford to overlook the fact that our interests can best be promoted through the retail lumber merchant; our success in promoting and protecting our interest lies in educating him, getting him out of the rut and seeing if he can not be made as efficient in merchandising as those in other indus-

tries. He is on the ground and should be best qualified to cope with whatever contingencies may arise.

There are many difficulties that can be overcome if the manufacturers will co-operate more with the retailer, and through him amend their grading rules and classifications in a manner to meet the public demands. The manufacturers have been too independent in formulating their grades and classifications; in many cases they have been too one-sided, too little consideration has been given the requirements of the buyer or consumer, who, in the end, must be satisfied if the lumber is to be consumed. The retailer comes into direct contact with the consumer, the manufacturer does not. The retailer should, therefore, be solicited and his ideas given consideration when formulating our grading rules and classifications. I do not mean by this that he should dictate, but the demands of the buying public should be duly considered. This is more necessary under present conditions than it has been in the past.

Many of the retailers are going to oppose, for various reasons, some of the plans we may suggest, and it will doubtless be necessary to make experiments in different directions to find out just what course is best to pursue. All of this work should be looked after by committees appointed by the individual lumber associations and manufacturers of different wood species. The lumber salesmen throughout the country should be schooled along different lines. Instead of plodding along taking orders offered them here and there, they should be instructed to educate the retailer in a way to produce better results; they should report to the different bureaus which may be established any new construction of any nature in which wood could be used; and there should be a system of following up matters of this kind in the same manner as the substitutes.

Depend Too Much Upon Secretaries

I think the lumber associations depend too much upon their secretaries, and one or two other officers, to do all the work; and the few who are appointed on the different committees accept the appointments merely as a matter of courtesy and really make no effort to perform the obligations entailed. I have no definite plan by which to overcome our present difficulties, except that everybody interested in stumpage meet to discuss the necessity of promoting and protecting our interest. If that is done, I am satisfied it will not be long until we will be organized and accomplishing results.

Stumpage holders, who are not manufacturers, are not spending anything toward promoting the use of wood products, although they are just as vitally interested as the manufacturer, who is cutting up his timber at this time; in fact, more so, because interest is piling up on his holdings, and unless something is done to stop the inroads being made by the substitutes the chances are he will never realize cost out of his timber.

I think we have made a mistake in advertising how rapidly the forests are being depleted, as it has given to the manufacturer of substitutes and the public the impression that lumber is scarce, and therefore high priced.

It seems to be the object of the present selling organizations to try to get a few cents more for their product than their neighbors, and if this is done they seem to be content, believing that end of their business is being properly handled. In most cases the one having the largest selling force and spending the most money to beat the other fellow to the business, or beat him out of it, is considered the most successful in the selling department, although he creates nothing, does not increase the consumption of lumber one foot, and knows when he is taking the business that, sooner or later, the other fellow will either increase his selling force to get the business, or he will cut his price sufficiently low to force it his way. So in our selling methods, instead of increasing our efficiency, benefiting ourselves and the world in general, we are adding to the cost of lumber. What lumberman here to-day has caused an increase in the consumption of lumber in any direction, or what lumberman do you know of who, in the last twenty-five years has caused any increase in the consumption? Only a few years ago had any one suggested to the lumerman the use of wood blocks for pavement he would have been given little consideration; but someone, not interested in timber, introduced creosoted wood paving blocks and proved to the world that they are the best pavement on earth. To-day we know it. As a result, their use has increased all over the world.. The consumption of this item alone means more profit to the lumber manufacturer of all woods than the profits resulting in trying to advance the market price through different sales methods in force during the last ten years.

Just think how much more lumber could be consumed if some one should devise a cheap process of treating lumber so as to make it fireproof. Is it unreasonable to suppose this can be done? The accomplishing of this looks easier to me than the thousands of other things that have been accomplished. The great trouble, in my opinion, is, we have never given it enough thought or consideration. If the lumbermen—and especially those interested in timber—do not put forth any effort in this direction, who can we expect will do it? And this is only one means of increasing the use of lumber; there are many others.

The world to-day is not using half the lumber it could if every one were to use all the lumber actually needed, based upon the present plane of our civilization. We can not produce ideal conditions, but we can overcome many of our present obstacles and put our business on a better paying basis, and at the same time benefit the world as a whole in doing so, if we will only devote our energies in that direction.

The Old Man's Busy Day

"The Old Man is powerfully busy to-day," remarked the bookkeeper to Big Dave who walked in and noting the closed door jerked his head interrogatively toward the private office.

"Busy!" ejaculated Big Dave, "Why, man, this is the fifteenth day of July and no retail lumberman has a license to be busy on a day like this.

"Better go in and find out," suggested the bookkeeper.

Big Dave passed the timid stage so many years ago he has forgotten there is such a stage in the career of travelling salesmen. He knocked and a great voice roared out to him to enter. The sight that met his eyes caused them to distend.

The Old Man glanced up and bellowed: "Sit on your hat, stand in the corner or come back in two hours."

"I'll come back," said Big Dave carefully noting that every chair was occupied.

He spent an hour talking to the yard men, another hour mentally noting the capacity of the empty bins and piling spaces.

A bit later he returned to the office and found the Old Man giving parting instructions regarding a shipment of storm sash. Wheeling in his chair he faced Big Dave and demanded:

"What sort of a price can you make me on ½ x 4 No. 2 strips, S1S and matched?"

"How many?"

"Well, say 20,000 feet, surface measure, and fill the car with 1 x 4 No. 2 flooring."

"We can make the ½ x 4 stuff out of 1¼-inch strips, if we have them and in a rough way I would say the stock will cost you $1.50 more than the current price of the strips."

"Just send me a car," commanded the Old Man.

"Better include a car of that 6-inch No. 2 flooring," suggested Big Dave. "It's extra value stock."

"Send it along. It may come in handy," said the Old Man.

"Now, if I am not killing the goose that has just laid a golden egg, what in the world do you want with all this matched stock?"

"I want to sell it," the Old Man responded with a grin.

"Sure pop," replied Big Dave without annoyance, "but how are you going to sell it, is what I really want to know?"

"All the old barns around here are covered with inch boards. The sun has warped many of them, battens are off in places and the cruel winter winds whistle in and chill poor Molly, Dolly or Dobbins. I've sold stock to ceil the interior on two barns already. One of my customers will turn the rough side out and whitewash the interior, the other expects to paint it. One expects to use the ½-inch stock, the other will buy standard flooring."

Big Dave whistled, thought a moment and then remarked: "Better make that an order for a full carload of the ½-inch stock. You'll need it."

"Not this winter. I've ordered twice as much as I think I shall need."

"Where did you pick up this idea," asked Big Dave as he finished writing the order.

"Went out to call on Bowman one day. He owns 240 acres south of town and raises some stock. Built his barns fifteen years ago. Grumbled about his stock getting cold and was figuring on rebuilding with concrete or tile. His barns are all right. A bit old-fashioned, but good for years of service. We looked them over and decided that the best thing he could do would be to ceil them up on the inside. Then we began to figure, speculatively, on how much food it took to offset the cold that came in through the cracks, and before we were through we decided the cost of the ceiling would be more than offset by the saving in feed.

"I never thought ot that," remarked Big Dave.

"Nobody ain't accused you of thinking," said the Old Man. "It's your job to write orders. Thrushmann is the fellow that does the thinking—sometimes."

"I'm doing a bit now," said Big Dave. "I am thinking what would happen if I should tear up this order and hit you a whollop on the jaw."

"That's not a thought," observed the Old Man. "That is a childish impulse."

"Guess you are right, all right," assented Big Dave, stowing his

order book securely away. "But why didn't you ever think of this before?"

"Well," remarked the Old Man reflectively, "I just didn't. But in the name of all that is reasonable, why didn't you think of it?"

"Well, now you mention it, I didn't think of thinking of it," confessed Big Dave.

"Ceiling the inside of the barn will call for the use of some 2 x 4 or 2 x 6 for nailing rails and the use of a great deal of ½ or 13-16-inch ceiling or flooring, whichever you wish to call it. That will give the barn walls a dead air space and stop the inflow of cold air. A few windows will provide ventilation during the late fall and early spring months—and there you are."

"How do you know the farmers will adopt your idea?" inquired Big Dave.

"Well, I've orders from two of them and half a dozen others biting at the bait I have so temptingly hung before him. 'Nuther thing, whatever Bowman does half the farmers of this county can be persuaded to do. He's a sort of bellwether an' leads the flock."

"May I try to induce Hickman down the line to develop business of this sort?" asked Big Dave.

"You may try to your heart's content, till you are blue in the face, or until the cows come home, but Hickman'll never have the courage or the opportunity to work up the idea in his section. He's what you fellows call a dead one."

"I'll suggest the idea to him, anyway," decided Big Dave. "By the way, why did your bookkeeper call this your busy day and what were all the rail birds doing when I came in?"

"This is the day I buy for the fall trade. The rail birds were writing orders and one or two of them gave me the outline of a selling idea, something I never expect you to part with."—The Lumber World Review.

Circassian Walnut

The Forest Service recently issued circular 212 dealing with Circassian walnut, including its history and commercial uses. As is well known, this is an imported veneer wood, though the quantity used annually in this country is not large. The price is high, for which reason it is never employed in cheap articles. It is among the most expensive woods on the market, though a few others which are handled in very small quantities sell for more.

Circassian walnut comes from the southern provinces of Russia, near the Caspian sea, and from northern India. Its range, if plantings as well as natural growth are counted, extends practically round the world. It grows naturally from the Black Sea to the Pacific Ocean, and has been planted in all parts of central and southern Europe, and in many parts of the United States, particularly on the Pacific Coast. It is the tree which grows the nuts known as English walnuts. It is the same as French walnut, Italian walnut, and Austrian walnut. These are planted trees, while Circassian walnut as it is known in trade is the wood of timber which grows wild. Trees in cultivation do not produce finely figured wood like that which grows in its native habitat.

The highly artistic veneers which have made Circassian walnut famous are cut from short, crooked, misshapen logs; because the smooth, well-proportioned timber lacks fine figure. Logs are bought by weight at Caspian Sea ports, the cost being about four cents a pound, including bark, sap, and all. The wood is heavy and the rough logs are expensive. Before shipping, the sapwood is hewed off and thrown away, and is a total loss to the purchaser who pays four cents a pound for it.

The wood is rich in figure and veneers appropriate for many purposes may be obtained from selected logs.

Want Timber Royalties Suspended

The British Columbia government will be requested by the Revelstoke, B.C., Board of Trade to suspend collection of timber royalty, ground rents and land payments generally until the conclusion of the European war. A resolution to this effect was passed by the Board at a recent meeting. A request will also be made that the Provincial Government waive the penalties payable by timber license holders, and that tax sales of lands be suspended until the financial situation improves.

Compensation Commission Appointments

The appointment was recently announced of Samuel Price, K.C., of St. Thomas, Ont., as chairman of the Workmen's Compensation Commission of Ontario. The position carries with it a salary of $10,000 per year. Two other commissioners, to make up a board of three, are to be appointed. The commission will have jurisdiction over all claims for injuries, through which disputes may arise, made by workmen employed throughout the Province, under the act passed at the last session of the Ontario Legislature.

Death of a Pioneer Bracebridge Lumberman

The death occurred at Bracebridge, Ont., recently of Mr. M. Thompson White, one of the oldest residents of that town, who had been engaged in the sawmill business for the past eighteen years. Mr. White went to Muskoka in 1873, taking up a farm and also engaging in the school teaching profession. In 1885 he went into the furniture and hardware business at Burks Falls, remaining there for two years. Then he went to Muskoka and commenced his lumbering business. The late Mr. White was very widely known throughout the district and will be mourned by many friends.

Sudden Death of A. M. Todd

Mr. Alexander M. Todd, who was a travelling representative of the Chas. F. Luehrmann Hardwood Lumber Company, of St. Louis, Mo., died very suddenly on August 15th, in his home at Chicago. He had been spending the summer at Lake Harbor, Mich., with his family, and returned to Chicago for a few days on a business matter. He leaves a wife and one daughter. Mr. Todd was very well known in the lumber consuming trade through the Eastern and Central States and Canada.

B. C. Products to be Shown in Export Markets

Samples of British Columbia fir, spruce and cedar for the export trade, are being prepared and will be forwarded to Dominion trade commissioners wherever they may be located. This action is taken in co-operation with the minister of trade and commerce at Ottawa. The samples will be sent to a number of points in China, Japan, South Africa, South America, the British West Indies and the Netherlands, besides points in Great Britain and Europe, and will show both the finished and unfinished product. The provincial department is desirous of combating the notion which has largely prevailed that only big timbers were shipped from this province.

Important Project for Newfoundland

A despatch from St. John's, Newfoundland, says: "The investment of millions of dollars is being planned by a group of Canadian capitalists for the establishment of large paper pulp and allied enterprises on the west coast of Newfoundland, if the Government will grant the necessary concessions."

Quebec Timber Sale Postponed

The auction sale of timber limits, which was advertised by the department of lands and forests of the province of Quebec to take place on August 11th, was postponed until October 20th.

Alfred Dobell & Company, Liverpool, under date of August 1st, say:—What was otherwise an uneventful month in our trade closed under the shadow of a grave international crisis. With a bank rate which bounded in three days from 3 per cent. to 10 per cent., and a situation charged with anxiety and uncertainty, business for the time being has been brought to a standstill. Under such circumstances it seems futile to review the course of business during the past month, or to attempt to forecast the future.

Mr. R. M. Hamilton, who is well known to the trade and for many years occupied the position of General Superintendent of the McGregor Gourlay Company works at Galt, Ont., has been appointed Works Manager of the Canada Machinery Corporation, Limited, with supervision of the manufacturing departments of their various plants. His headquarters will be at Galt, Ont.

The Smart Turner Machine Company, Limited, Hamilton, Ont., are supplying M. & M. A. Deans, Sprucedale, Ont., with one of their Duplex Steam Pumps.

Mr. T. A. Burrows, Winnipeg, Man., one of the best known lumbermen of central and western Canada, recently visited Toronto. In spite of the many pessimistic reports, which have come out of Western Canada of late, Mr. Burrows takes a very hopeful view of the trade situation. He considers however, that it is of great importance for the business man to-day to keep an extremely careful eye upon his liabilities. He is confident that the West as a whole will pull out of the present unsatisfactory trade condition rapidly, but stated does not expect any important improvement until it is known to what extent Great Britain controls the war situation.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers Ltd., Toronto, Ont. 7-tf

Wanted

One or two blocks of Spruce, also Pine, must be well manufactured. Apply Box 31, Canada Lumberman, Toronto. 11-t.f.

Wanted

One or more cargoes of 1 and 2 in. Spruce for delivery at a Lake Erie Port.

E. C. BRADLEY LUMBER CO.,
14-17 Cincinnati, Ohio, U.S.A.

Wanted

1,000,000 ft. Spruce, 1-in., 1¼-in. and 2-in. If not already cut will give sawing instructions. Apply Box 30, Canada Lumberman, Toronto. 11-t.f.

Wanted

Soft Elm, 4/4 log run.
Birch, 5/4 log run.

Quote lowest prices F.O.B. mill for dry or new cut.

E. M. NICHOLSON,
Board of Trade Building,
9-t.f. Montreal, Que.

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

To Manufacturing Lumbermen

Wanted—Clear Birch, kiln dry preferred, cut to following measures: can take about 22,000 pieces per year in two deliveries, viz.: 8,000 cut 21 in. x 5 in. x 3 in. and 3,000 cut 28 in. x 5 in. x 3½ in. Quote prices C.I.F. London, Eng. Address Geo. Care Ltd., Victoria St., Norwich, Eng. 15-17

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

Lumber For Sale at Seguin Falls

Dry and ready for immediate shipment, will ship mill run culls out. Birch at $23 per M. ft., Hemlock $16.75, Pine $25 per M. ft. F.O.B. cars.

	Feet
1 and 2 in. Birch, 12-16 ft. lengths...	20,000
1,715 pcs. 2 x 4, 10-18 ft. Hemlock..	13,470
1,416 pcs. 2 x 6, 10-18 ft. Hemlock..	17,476
4,295 pcs. 2 x 8, 10-18 ft. Hemlock..	72,907
1,433 pcs. 2 x 10, 10-18 ft. Hemlock.	51,911
1,849 pcs. 2 x 12, 10-18 ft. Hemlock.	46,974
Hemlock, 1-in., 10-18 ft.	54,300
1 in. x 2 in. Pine	8,300
	285,338

Apply to MONTEITH BROTHERS,
14-17 Rosseau, Ont.

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale-Machinery

WOODWORKING MACHINERY FOR SALE: 1 24-in. Ideal planer, matcher and moulder; 6 30-in. Ideal pedestal bandsaws. 1 MacGregor-Gourlay variable power feed rip saw; 1 No. 51 Crescent universal woodworker; 1 36-in. Egan double drum sander; 1 10-in. Hespeler four-side moulder; 1 Cowan panel raiser; 2 16-in. Ideal wood lathes; 3 upright power mortisers. H. W. Petrie, Limited, Toronto. 17

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

Experienced lumberman is open for position on road, or would take management of retail yard. Address Box 65, Canada Lumberman, Toronto. 17

Experienced lumberman wants position. 12 years practical experience as bookkeeper, manager, and superintendent of woods operation. Also full knowledge of the hardwood business. Box 74, Canada Lumberman, Toronto, Ont. 17-17

Position wanted as practical sawmill foreman. Twenty years' experience. Can furnish the best of references. Address Box 51, Canada Lumberman, Toronto. 14-t.f.

Wanted position as shipper or foreman or both in small plant, soft or hardwoods, twenty-five years' experience. Can furnish first class references. Box 56 ,Canada Lumberman, Toronto. 15-17

EXPERIENCED SUPERINTENDENT wants position to take charge of lumbering operations, bush, mill, etc. Desires a change. Can get results and furnish the highest credentials. Box 46, Canada Lumberman, Toronto. 13-17

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

Pulpwood General Superintendent wanted for the supervision of a very large operation. Must have thorough experience and be a pulpwood specialist. Operation is a large one and requires good operator and good business man. State in full experience, present position, age and other particulars. In confidence. Apply, Cheap Pulpwood, care of Canada Lumberman, Toronto. 17

Business Chances

For Sale

Timber Limits, principally Hemlock, also Pine, Spruce and Hardwood. Also Saw-mill, logging and driving outfit. For particulars address Box 52, Canada Lumberman, Toronto 14-17

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto. Ont. 8-t.f.

Tenders for Fallen and Burnt Timber

Tenders will be received by the undersigned up to and inclusive of the 15th day of September, 1914, for the burnt and fallen timber on Berths 2 and 4, Township of Nipissing.

Also tenders will be received for Berths 2 and 4, Twp. Nipissing and Berth 4, Twp. Gurd.

The highest or any tender not necessarily accepted. For particulars address

ALEX. BLANCHARD,
Box 265 North Bay, Ont.
15-18

Sale of Pulp Timber

Sealed tenders will be received by the Minister of Lands at Victoria, B.C., not later than noon on the 30th day of November, 1914, for the purchase of nine (9) pulp licenses, situated on the Coast of British Columbia, and estimated to contain the following:—

Hemlock..	87,301,000 ft. B.M.
Balsam Fir	44,444,000 ft. B.M.
Spruce	43,244,000 ft. B.M.
Cedar.	27,779,000 ft. B.M.
Douglas.. Fir	2,779,000 ft. B.M.
Total	205,547,000 ft. B.M.

This timber is within ten miles of salt water and is tributary to Vancouver.

Thirty (30) years will be allowed for the removal of the timber.

For full particulars and maps address H. R. MacMillan, Chief Forester, Victoria, B.C. 17-20

Miscellaneous

For Sale

A magnificent Pulpwood Property situated in the Gaspe Peninsula, containing an area of about 921 square miles. The property has been valued by one of the leading lumbermen of Canada at over $6,000,000, and the owners will be glad to hear from first-class firms desiring to purchase such a property. The price asked is $1,500,000 cash, and full particulars will be sent to responsible parties who will be given every facility for having the property cruised immediately. Address, P. O. Box 638, Halifax, Nova Scotia. 17

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

Storing Moulding and Frame Stock

There used to be quite a lot of argument between retailers and the people who wrote stuff for retailers about moulding stock and whether it should be kept in bins or standing on end in sheds. The opinions of the best authoritiees seem to favor end piling of moulding. The best thing of this kind the writer has seen lately was enclosed bins for moulding stock.

It was in the yard of a very upto-date retailer who in times past has experimented with moulding stock in racks, in bins and standing on end. After having years of experience, when he built a new shed he equipped bins for his moulding stock pretty much as bins are equipped for keeping door stock protected from both light and dust. The bins for the moulding and the frame stock were partitioned off with sealed partitions and just far enough apart to swing a pair of doors together and all the bins holding moulding and frame stock were closed up with doors so that they were both dark and dust proof.

It takes a little more time and costs a little more money to equip bins for moulding and frame stock in this way, but it seemingly pays, for it keeps the stock bright and fresh and it is really not much more trouble to get at than if it were all exposed. The patterns and sizes can be marked on the door so that one

may know the contents at a glance. Then it only takes a moment to open the door to whatever bin stock is wanted. The stock being kept up in the dark protected from the dust is found to be just as bright and clean as when it came into the yard, which makes it a pleasing stock to sell at all times and prevents waste and loss of value through being black and dirty with age.

British Columbia Red Cedar Slates

British Columbia is regarded as the last stand of red cedar in North America, says a recent report, and it is predicted by mill men that within the next few years hundreds of new mills will be established in this province to participate in the profits to be derived from the manufacture of cedar shingles, i.e., wood slates. It is predicted by those who have investigated the subject that British Columbia will have almost the exclusive market of the continent for its red cedar lumber and shingles, and with the opening of the Panama Canal the industry will probably receive great stimulus. Cedar logs and shingle bolts are not exported except from Crown lands, and this prohibition will result in more mills coming to the province, as the product must be manufactured here. Washington State has 435 shingle mills with a daily output of 15,000,000 shingles. Whatcom County, Wash., has 113, as compared with 60 in British Columbia. More than half of the shingles produced in this province are exported to the United States, and as there still remains a plentiful supply of cedar timber in British Columbia the industry promises to increase in importance and to become ultimately one of the most profitable in the province.

Saving of Timber by Using Thin Saws

By making the width of face small two objects of very great importance are attained. In the first place, as small an amount of material as possible is converted into sawdust and thereby almost entirely wasted. This waste in sawdust does not appear at first sight to be of extreme importance when one watches only a few planks being cut; but when one sonsiders this waste is repeated millions of times in the course of a year in a single sawmill the absolute necessity of economy in this direction becomes evident enough. If, for example, a 14-in. square log is to be converted by sawing into 5/8-in. planks, if the saw cut away 1/1/-in. only between each plank, twenty planks will be got from the log; if it cut 1/8-in. away only eighteen boards 5/8-in. thick can be got out of it; and if 3/16-in. be lost in sawdust then only seventeen boards will be obtained. Thus in the first case about 9, in the second 17, and in the third about 23 per cent. of timber is lost in the shape of sawdust.

If these logs were 12 ft. long, then in the first case, there being twenty-one cuts, each 14-in. deep and 1/16-in. thick, there will be more than 1/ (exactly 1 17/32) cubic feet of timber converted into sawdust for every log. In the second case there would be 2¾ cubic feet lost, and in the third 3 15/16 cubic feet would be the waste in sawdust.

If now we suppose that a single saw frame cuts up fifty of these logs per day, and works 250 days per year, the losses per year in the above three cases would be 1,150, 34,350, and 49,150 cubic feet of timber per annum. Taking this at the price of 2s per cubic foot, which is a fair average for yellow pine, we find that the above three yearly losses are represented in money by £1,915, £3,435, and £4,915. This example serves to show the extreme importance of saving by making as little sawdust as possible.—From Cutting Tools, by R. H. Smith.

Timber Cruises
Forest Surveys

Water Powers, Storage, Logging and Lumbering Contracts, Reports for Financial Houses and Lumber Concerns.

R. O. SWEEZEY
164 St. James Street,
MONTREAL

Cleans a building of Rats and Mice in short time, keeps it cleaned, for it is always ready for use. Made of galvanized iron, can't get out of order, lasts for years. Large number can be caught daily. Go to Catcher mornings, remove device inside, which only takes few seconds, take out dead rats and mice, replace device, it is ready for another catch. Small piece cheese is used, doing away with poisons. Catcher is 18 inches high, 10 inches diameter. When rats pass device they die, no marks left on them. Catcher is always clean. One of these Catchers set in a livery stable in Scranton, Pa., caught over 100 rats in a month. One sent prepaid to any place in Canada or United States upon receipt of $3. Catcher, 8 in. high, for mice only, prepaid $1. On account of shipping charges being prepaid, remittance is requested with order.

H. D. SWARTS,
Inventor and Manufacturer, Scranton, Pa.

Ontario Lumber Company Limited

In Liquidation

The undersigned invites tenders for all or any of the following Timber Limits in the District of Parry Sound, Province of Ontario:

Township	Berths	Area (sq. miles)	Estimated quantity timber
McConkey	1, 2, & 4	56¼	About 117,000,000 feet, including 70 million feet of Hemlock and about 15 million feet Birch
McConkey	Part 3	4¼	
Hardy	3	20¾	About 33 million feet, including 15 million of Hemlock and about 9 million feet of Birch
			Less 10 million feet in above 2 townships
Mills	1	23½	About 54 million feet, including about 31 million feet Hemlock and about 11 million feet Birch
Pringle	1 & 2	43¼	About 38 million feet, including about 16 million feet Hemlock and about 12 million feet Birch
Lount	3	18¼	About 28 million feet, including about 13 million feet Birch
Machar	Part 2, 4	15	About 5 million feet—Hemlock and Birch
Gurd	1	18¼	About 5 million feet—Hemlock and Birch
Henvey, or Broken Front	6	73	About 7 million feet—mostly white and red pine

The above areas, timbered, are covered by Government Licenses renewable from year to year. Estimates are taken from the Company's records.

The undersigned also offers for Sale, on behalf of the Creditors of the Company, the French River Mill property and equipment, the property of the above Company.

The lowest or any tender not necessarily accepted.

BRYAN PONTIFEX, C.A.,
Liquidator
2 Leader Lane, TORONTO

Review of Current Trade Conditions

Ontario

The first effect of the outbreak of war upon the lumber trade at Ottawa, and in fact throughout Ontario, was an almost immediate reduction in the volume of the trade, and a premature feeling of pessimism, which was soon replaced by a steadily growing feeling of confidence. Recent Ottawa reports are to the effect that the outlook is improving. The export trade is becoming active again, since the rate of exchange on foreign drafts became almost normal. Several other factors have assisted in improving the export business. Insurance charges are getting back to their former rates. Trade routes are being kept open, and the British state insurance scheme has been extended to colonial shipping. Several sailing vessels have recently left from Montreal and Quebec for British ports with loads of lumber, and lumbermen are expecting exceptional opportunities for developing their trade abroad. Frequent inquiries for all kinds of lumber, principally for use in shipbuilding, have recently been received at Ottawa. Extremely low water in the Ottawa river and its tributaries continue to handicap the mills. In fact the water recently reached a record low level. Most of the large mills however, report that they hope to be able to keep open for the rest of the season. Latest reports are that woods operations this year will be considerably less than in any previous year, on account of the fear that the cost of provisions will advance and also on account of uncertainty as to next year's demand for lumber. However, there will be greater activity in the bush this year than was expected when the war broke out. Details of the contemplated operations of several of the large Ottawa companies, will be found in our Ottawa correspondence in this issue.

Eastern Canada

The lumber trade in Montreal has felt the disturbing effect of the war acutely. The retail trade is very quiet, as building operations have been greatly reduced. The large consuming manufacturers have also felt the effect, and are not ordering stocks of lumber to any extent. The export trade has suffered by the interference with ocean transportation. The pulp and newsprint market have been greatly strengthened, on account of the American consumers having been cut off from their European supplies.

The demand for Eastern spruce at Boston is poor. Prices continue steady at $23.50 for dimension. Manufacturers feel confident that, in September, spruce prices will be firmer. Random spruce is not selling so well as a short time ago. Quotations are: 2/3, $20.50 to $21; 2/4, $21.50 to $22; 2/5, 2/6, 2/7, $20 to $21; 2/8, $22 to $22.50; 2/10, $23.50 to $24; 2/12, $24 to $24.50. Spruce covering boards are not selling well.

At New York the spruce market continues dull. Prices are steady but buyers are not active. Activity is reported in the demand for lath at Boston as a result of the buyers fearing that they might not be able to get delivery of stocks ordered in Canada. For 1⅝-in. lath $4.10 is now the top price, and very little business is reported at less than $4.05. A fair volume of shingles is being sold. The demand being best for white cedars. The choicest extras are selling at $3.60 and some good extras at $3.45. Arrivals of red cedar shingles are scarce, $3.63 to $3.70 is the top price for extras.

Great Britain

The measures which have been taken by the British Government for the relief of the financial disturbance resulting out of the war, have done much to clear the situation. Business has progressed much better than was expected when the war was declared. From outward appearance the banks are conducting business now in the usual manner. It is not possible as yet however, to estimate the effect of the war upon the wood trade. It is certain that spot prices must advance, and it appears equally certain that northern supplies of wood will not be entirely cut off. Cargoes from the White Sea have been arriving at London. The London trade continues on a fairly satisfactory basis, but is very largely for cash. An interesting result of the war is the creditable settlement of industrial strikes in London. The trouble between the Master Builders' Association, and some of the trades unions has been settled after a seven months struggle, and much work has been resumed.

At Liverpool, the trade at latest reports was confined entirely to merchants and consumers. Shipping agents have, for the time being, to content themselves with looking on. Merchants are getting rid of a considerable quantity of stock, chiefly softwood for ship work, at good prices. The lowering of the Bank rate was a great relief to the trade, removing the financial strain under which many operators were carrying on their business. Recent imports into Liverpool were said to be much too heavy, but this is more than likely to be offset by the shortage of imports which can now be expected. Instructions have been sent out to shippers to hold back all goods for shipment against contracts, until further notice. Many importers are declining to accept liability for war risk insurance. Spot prices have advanced all round and an advancing market is expected during the continuance of the war. Forward business has come to a complete stand-still. Prices have advanced £2 per standard for spruce and Rigas. Stocks are heavy.

At Glasgow, business during the past fortnight has been entirely under the influence of the war, very little inclination to buy or sell being noticed. Some movement in Canadian and Riga spruce is reported at advanced prices, which is to be expected, but in other directions, although higher prices are asked, no inclination to buy has developed. Stocks of first quality Canadian pine are abnormally small and would justify stiffer prices under ordinary conditions, but the demand has fallen off greatly during the last year or two.

United States

During the past fortnight there has been a great deal of hesitation in the lumber trade in the United States, as a result of the war in Europe, but this hesitancy is expected to pass away before long. Great improvement is reported in the export business, since the first few days of panic. War risk rates on lumber were placed at 10 per cent. on August 11th, but in less than a week they had fallen to 4 per cent. and a further reduction was expected. Exporters have received cables from their Irish and English agents, asking them to let shipments go forward properly covered by war risk, and saying that the accounts would be duly honored. The latest reports indicate that some of the large exporters will resume shipments to England, Ireland and Scotland, as well as to some French ports almost at once. European countries will use large and increased amounts of lumber, and as their supplies from the Baltic have been shut off; they must look to the United States and Canada. Another important factor in connection with United States trade is the improved condition in Mexico, which is expected shortly to come into the market for American lumber.

As to the interior trade, June and July were really good months and the demand during August was fair. Retail stocks are reduced and a steady volume of trade is in progress. There has been no material change in the northern pine markets. The same applies to hemlock. Prices remain unchanged. Improvement is looked for in September, as the outlook for building operations is better. At Buffalo, the volume of trade in Northern Pine is below normal and does not show much tendency toward improvement. The demand for box lumber is steady and stocks are small. At North Tonawanda a tendency is reported towards taking orders ahead for stock, due probably to a prospective shortage of cars. Most purchases however, are for current requirements. Prices are steady. The hemlock trade at Buffalo is quiet and recent prices have not been satisfactory, as stocks are plentiful. The demand from retailers is fair and they report business holding up well.

There is a fair local demand for hardwood at New York. Yard stocks are low and the factory trade has commenced to move. At Buffalo, the hardwood trade shows little improvement. The export business is very quiet and prices are only steady. Some curtailment of mill output is reported. Oak and maple are most in demand. Hardwood prices at Boston are firm. Exports are practically at a standstill.

Barbados Market Report

S. P. Musson, Son & Company, reports as follows under date of Barbados, August 7th: Lumberstuffs.—White pine—There have been no arrivals during the fortnight, but stocks on hand are sufficient for present requirements. Spruce—The only receipt is a small lot of 42 m. ft. ex Trn. Schr. "Ainslie" from Port Hawkesbury, which was sold at $22.10 round. Pitch pine—The only arrival is a small lot of 57 m. ft. by the S.S. "Mecklenburg" from Mobile. Shingles—Arrivals consist of the following: Schr. "A. V. Conrad" from Campbellton with 1,567 m. Extra No. 1's which had been contracted for since last year. Trn. Schr. "Emily Anderson" from Port Hawkesbury with 2½ million Extra No. 1's which had been sold to arrive at $2.55. Trn. Schr. "Ainslie" from Gaspe with 617,000 Long Gaspe shingles, which fetched $4. The market is heavily overstocked, and we fear prices must decline. Shooks

View of Mills in Sarnia.

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Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

A Better Outlook for Trade at Ottawa

Ottawa, Aug. 24 (Special to the Canada Lumberman): Immediately following the announcement of war between Great Britain and Germany, activity in the lumber business in Ottawa and district, as elsewhere no doubt, was greatly reduced. Lumbermen naturally became pessimistic of the results, prematurely it would seem, for now they are ready to admit that things are gradually improving and the outlook is not such as to encourage pessimism, but the contrary. The export trade, which was practically halted when hostilities commenced in Europe is becoming active again, through the rate of exchange on foreign drafts getting back to almost normal; insurance charges almost down to their formal schedule; the trade routes being kept open in comparative safety across the Atlantic for British vessels, and the extension to colonial shipping of the British scheme of state insurance. During the past week there have been several sailings of vessels loaded with lumber from Montreal and Quebec for British ports. Lumbermen are now beginning to see great opportunities for developing their trade abroad. Many inquiries have been received here since the war began for all kinds of lumber, to be used principally for shipbuilding.

The most serious impediment to the trade in the Ottawa Valley just now is the low level of the water in the Ottawa river which is at a mark low enough to constitute a record. Several firms, among them that of J. R. Booth, are being seriously handicapped in their operations by the lack of water, but they will do their best to keep open for the balance of the season. In some of the tributaries to the Ottawa there is barely enough water to float enough logs to keep mills going.

Operations in the bush this year will be considerably less than they have ever been before, owing to fear that the cost of provisions will be high; also to apprehensive feeling concerning next year's demand for lumber, due to the state of the money market brought about by the war. But there will be more activity in the bush this year than was expected three weeks ago when the war began. J. R. Booth, will not operate more than eight or 10 camps this season. It was his intention to have from 3,500 to 4,000 men in his limits had the war cloud not broken. It is too risky he says, to place too large an army of men in the woods, with the prospect of provisions soaring to an almost prohibitive height. Shepard and Morse, however, already have about 450 men in their limits along the Kippewa and Quinze rivers, compared with 425 at this time last year. The W. C. Edwards Company will not operate in the bush more than is absolutely necessary, and this may be said of almost all the firms in this district. The Hawkesbury Lumber Company and McLachlan Bros. intend to be as active this year as they were last. This is partly due to considerable timber on their properties suffering by fire and storm early this year.

Mackenzie's Limited, of Ottawa, contractors for lumbermen's supplies say they have orders on their books for more goods than they did at this period a year ago, but, since the war, several of these orders have been held up. This firm say that they know already that lumbering will be very much reduced in the camps this season. Wholesale grocers and provision merchants such as H. N. Bate and Sons, F. J. Castle and Company, both of Ottawa, admit that the demand so far for camp provisions is considerably behind that of previous years up to this time. W. H. Dwyer, the largest dealer in grain in this part of the country says it is a little early for him to expect any business from the camps, but he will be surprised if he gets as many orders as in other seasons.

The Maclaren Lumber Company, of Buckingham, Que., have just completed a big dam and slide on the Lievre river, which are said to be unique in some respects in the lumber world. The new work is a part of a scheme for conserving the huge limits held by the company on the Lievre. There are three important features to this dam, says Mr. J. B. McRae, of Ottawa, the engineer responsible for the undertaking, which are the flood gates, the power flumes and the log chute. The chute is a permanent structure of reinforced concrete, with a V-shaped trough. It is said this concrete chute is the only one in the world being used for logs. Fifty thousand logs can be delivered through it in 10 hours, compared with 15,000 in the same time in the old wooden chute. The logs at one point can travel at a rate of 38 miles an hour. Power can also be developed at High Falls to the extent of 100,000 horse-power. The falls have a drop of 160 feet. The water can be turned through five flumes, each capable of driving a 10,000 h.p. electric unit. A detailed illustrated description of this work will be published in a later issue of the Canada Lumberman.

In addition to this work the same company are connecting all parts of their limits by telephone with the head office at Buckingham, so that in case of fire help can be quickly despatched to any point. The telephone line is about 90 miles long. Every centre of habitation in the district is connected on this line.

Fire was discovered in Campbell and Stearn's limits at Thirty-One-Mile lake, north of Ottawa, last week by one of the rangers of the Lower Ottawa Forest Protective Association. He quickly got help and prevented what promised to be a very serious fire. Careless sportsmen are blamed for starting the outbreak. The chief fire inspector of the same association recently prosecuted 40 settlers in the Gatineau district for burning slash and debris in valuable timber limits. In each a conviction was registered and a penalty imposed.

Montreal Trade Feeling Effect of the War

Montreal, Aug. 26th (Special to the Canada Lumberman): The war situation is having a very disturbing effect on the lumber business. Retailers are buying from hand-to-mouth, and this will probably continue until such time as there is more definite news as to how the conflict is likely to go. Every branch of commerce is affected by the European outbreak, and as lumber is one of Canada's most important industries, it follows that the trade feels the situation acutely. Many important building projects have been postponed, and in other instances work has been wholly or partially stopped. Building permits show a serious decline, and even those issued are for comparatively small amounts. Collections are very slow.

Industries which are large buyers of lumber, such as car building, are almost at a standstill, the railway companies finding it impossible to secure the necessary capital from Great Britain.

The sash and door section is very quiet and new orders of any extent are practically unobtainable.

The export trade is upset by the disorganization of ocean transportation, the schedules of the regular lines having been put quite out of joint. Lumber is still being sent, but there is uncertainty as to how long shipments will be made. The steamship companies have made a strong attempt to advance rates.

So far as can be learned at this date, the number of men to be employed at the logging camps next season will be reduced. Some of the lumber companies are holding their orders for equipment, etc. The rise in the price of provisions is a serious matter for the companies, but against this must be set the lower wages which will prevail.

The pulp and newsprint markets have continued to strengthen under the stimulus of war conditions. Sulphite of the higher grades is very scarce, and is likely to continue so until imports from Europe are available. Prices have risen from $10 to $15 per ton.

Ground wood is also very firm, advancing about $2 per ton.

There is a very large demand for newsprint, with many inquiries from Italy, England, South Africa, and South America. Some orders for the three last named have been accepted by the Laurentide Company. Naturally, quotations have materially advanced. Canadian and United States mills will probably be able to meet the outside demand as well as to supply home markets.

Canadian Railway Ties May Find English Market

The Canadian Trade Commissioner at Glasgow, under date of July 21st, reports as follows: In view of the fact that an increased and more direct steamship service between this port and British Columbia will take place when the Panama Canal is open, it might interest British Columbia lumber shippers to know what specifications are required for railroad sleepers, or ties, in this market. At present the trade is for the most part with the Baltic for sleepers made from what is known as red wood.

The blocks from which the sleepers are to be cut should be of good sound timber, straight, free from shakes, large or loose knots, or other blemishes, and reasonably free from sapwood, water and dirt. The sleepers should be cut from blocks not less than 8 feet 11 inches long, each block being sawn up the middle so as to form two sleepers. The blocks should be of such transverse dimensions that at least 90 per cent. of the sleepers shall be, after sawing, 10 inches broad and not less than 4⅞ inches thick, with a flat surface on the upper side

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As those who won't hear."

If you hear, you will understand; if you understand you will buy; if you buy you will know what we mean by Fenderson value.

You must see the Fenderson Spruce, the smooth dressing, the dryness, the high-line, uniform grade to appreciate Fenderson Value. It is not sold on a competitive price basis, but on a competitive Value basis.

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not less than 7 inches in width throughout the entire length of the sleeper. The remainder, which must not exceed 10 per cent. of the total quantity, should be, after sawing, 10 inches broad, and not less than 4¾ inches thick, with a flat surface on the upper side not less than 6½ inches in width throughout the entire length of the sleeper. The sleepers should be accurately gauged, and all those which do not comply with the requirements specified above should be rejected. Some buyers do the sawing of the blocks here. Other details would be a matter of correspondence between buyer and seller.

Canadian Stocks in London Will Benefit from War

Churchill & Sim, London, Eng., in their monthly wood circular under date of August 1st, say:—The deliveries in London during July are about equal to the total for July, 1913, the quantity for the seven months showing little variation in the aggregate. Prices improved to some extent largely owing to a diminished importation, and the difficulty experienced by buyers in chartering, especially from Russian ports. Fears of European complications were largely responsible for this, and the beginning of August finds a situation entirely unparalleled in the history of Western civilization; public opinion in England has never wavered since the crisis began in recognizing that her treaty obligations and the path of duty and honor lay in her ranging herself on the side of France and Russia so that the early days of this month find the five greatest nations of Europe engaged in a deadly struggle. The effect upon the wood trade can scarcely be gauged at the present time, beyond the obvious deduction that the partial cutting off of the northern supply must enhance the value of stock held in this country, and mitigate to some small extent the losses which the general trade of the country must suffer as the result of a war of such magnitude.

The month's imports from the St. Lawrence were:—
Pine deals, 130,000 pieces, against 194,000 pieces in 1913.
Spruce deals, 82,000 pieces, against 159,000 pieces in 1913.
Birch planks, 34,000 pieces, against 118,000 pieces in 1913.
and from New Brunswick—
Pine deals, 3,000 pieces, against none in 1913.
Spruce deals, 134,000 pieces, against 276,000 pieces in 1913.
Birch planks, 293,000 pieces, against 252,000 pieces in 1913.

The supply of pine and spruce deals was small during July; there was little change to record in prices until towards the end of the month, when European complications threatened to cut off the competing supply of whitewood from the North of Europe, and all quotations were withdrawn. Business, now that a great war is in progress, has been suspended, but Canadian and American shipments are reaping the benefit of the cessation of supply.

Liverpool and Manchester Stocks

H. W. Lightburne & Company, Liverpool, England, through their Canadian representatives, John E. Moore & Company, Limited, St. John, N.B., report as follows regarding stocks at Liverpool and Manchester during the month of July:

Spruce and Birch
Month Ending 31st July, 1914
Liverpool

	Import			Consumption			Stock		
	1912.	1913.	1914.	1912.	1913.	1914.	1912.	1913.	1914.
N.B. & N.S. Spruce & Pine, Stds. ..	2,730	5,850	3,710	4,750	3,630	3,740	9,590	9,190	8,040
Birch Logs, Loads	940	60	80	560	100	160	1,620	560	600
Birch Planks, Stds.	449	261	273	552	376	206	824	800	436
Manchester									
Spruce, Stds. .. .	6,270	6,460	3,680	6,650	5,440	7,190	11,260	9,420	13,690
Birch Logs, Loads..	600	100	100	420	120	280	900	520	980
Birch Planks, Stds.	127	18	158	97	79	188	594	424	600

Stocks in Manchester and Liverpool combined on August 1st were as follows:—

	1910.	1911.	1912.	1913.	1914.	
Spruce						
Manchester	9,970	13,860	11,260	9,420	13,690	
Liverpool	7,740	7,960	9,590	9,190	8,040	
	17,710	21,820	20,850	18,610	21,730	Stds.
Birch Logs						
Manchester	80	400	900	520	980	
Liverpool	340	1,040	1,620	560	600	
	420	1,440	2,520	1,080	1,580	Loads
Birch Planks						
Manchester.	800	151	594	424	600	
Liverpool	333	291	824	800	436	
	1,133	422	1,418	1,224	1,036	Stds.

Regarding the above stock sheet they say, it might be remarked that the import of spruce to the Mersey and Manchester for the month was less by 4,920 standards, while there was an increase in consumption to the extent of 860 standards—both healthful signs. The combined stock, however, stood at 21,730 standards, which, in normal times, would be ample, if not more than ample; but in these abnormal times, with other competing supplies cut off, the position assumes a vastly different aspect.

July Trade in Liverpool

Smith & Tyrer Limited, Liverpool, England, make the following report upon the British lumber trade during the month of July:

The month showed a steady trade without much animation or change. It closes with the imminent danger of a European war facing us and the course of business has been suddenly and violently disturbed. Pitch pine has been in better demand, largely owing to the efforts of the buyers in the outports to cover their requirements against improving prices. Hewn timber.—There is a sufficient supply. Sawn timber is heavy in stock at the line ports and values have only kept firm, but elsewhere there is an improvement. Prime lumber maintains its value without much enquiry. Lower qualities are much too heavily stocked and prices are barely maintained. Hardwoods generally are depressed and stocks ample. Spruce deals have stiffened in value for cargoes owing to the advanced freight rates, but liner parcels move off without much competition at unchanged prices.

Business Conditions are Sound

From every source at present one receives the opinions of people in a position to estimate reasonably the outlook for business on the American continent. Many letters from lumbermen will be found in this issue, all of which point clearly to a widespread feeling that all is well with us from a business point of view. It would be folly to indulge in exuberant optimism under present conditions, but it would be worse than folly to take an opposite view and expect and invite trouble. The proper stand to take to-day is to be conservative, cautious and hopeful, prepared for any eventuality, but doing our individual share towards assisting in the restoration of business activity which it is reasonable to expect. In the press of the United States this view has been widely expressed and is well represented by an editorial article which was published recently by the Chicago Herald, as follows:—"Sit tight! Don't rock the boat! That's the watchword to-day. That's the first duty of every American at this moment. That's what this country needs to keep it straight and safe and true to its course—absolutely all it needs.

"Business conditions are sound. We have one of the greatest grain crops in history. Its value has already greatly advanced. We have a sound financial system, backed by the greatest store of gold in the world. Our banks are solid, safe. There is nothing the matter with the United States.

"War will mean an unprecedented demand for supplies. Experts declare American business will feel a great impetus. While other nations destroy, this country will produce. While other nations are armed camps, this country will be a farm, a factory, a forge. Trade extension is predicted in all directions. The immediate future is plain.

"The national administration is acting wisely, promptly. The sum of $500,000,000 is available, under the Aldrich-Vreeland act, for an emergency. The organization of the reserve board will soon be complete. This will enable us to deal more effectively with the outflow of gold. Plans are perfecting to permit American registry of foreign vessels. This will protect and develop our commerce.

"We are preparing to maintain strict neutrality. Questions may arise with foreign nations as to what constitutes contraband. Such questions cannot conceivably involve us in difficulties. They will be settled by the ordinary processes. The general principles of neutrality and neutral commerce are plain. The United States will adhere rigorously to them. Friendly intercourse, as far as circumstances permit, will be its rule and its procedure.

"Stock exchanges have closed—a wise precaution. This country cannot be the dumping ground of the whole body of securities that war-mad Europe is anxious to convert into money. The closing is temporary. Elsewhere there is no prospect of interference with the orderly processes of American business. Stable conditions are here. All we have to do is to keep them stable.

"The administration has decided to appeal officially to the public to help maintain existing satisfactory conditions. The public cannot fail to respond. The only danger is one which it may create itself. Its course is simple. All it has to do is to sit tight, to do nothing to disrupt the fortunate condition in which this country happily finds itself.

"Don't rock the boat—that's the central idea! The swell from the great battleship, 'Europe,' will be felt. But it will not hurt us. It need not even break over the sides. There's nothing the matter with the boat that we are in. Straight and strong, well-seamed, well-caulked, well-timbered, with reasonable guidance it will bear us safely and prosperously through.

"Sit tight! Don't rock the boat! Keep its head well up against the sea! Don't let it get into the trough of the waves! Let every man realize that at this moment calm confidence and calm thankfulness are the first duty. They are absolutely justified by the favorable situation in which we find ourselves. They are the certain guarantee of a continuance of those conditions."

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Everything in Coast Lumber

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Lumber and Timber	1,000,000 feet	Fir Doors	2,000
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Perfect Douglas Fir Doors

Our Doors are sold by progressive Dealers from Pacific to Atlantic being made from the choicest selected stock produced by our big mill and manufactured by the most improved method in

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Write for prices F O B your station in straight cars or part cars with Circle F.

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Fraser Mills, B. C.

Making the Most of Things

From the best intelligence we have received there is no doubt now but that the small grain crops on the North American continent are as good if not better than the country at large has ever before known and the business world breathes easier in consequence of it, for these crops have got to be moved, and in so doing a large amount of money will be put into circulation, giving new life to business and everything else pertaining to living. People here in the city don't expect to pay any less for what they eat because of the big crops, but if business is good and work plenty the high wages paid for labor will give the wherewith to pay the producer what he asks for his stuff.

An immense amount of building will be started in Chicago this summer, greater than ever before known. Some of the structures will require three years to complete and tens of thousands of men will be given employment on them. 'Tis true, comparatively little lumber will be used in the construction of these larger buildings, although millions of feet will be used in concrete work and scaffolding. But, as a large percentage of the cost goes for labor, lumbermen will get a share of this in the sale of material that will go into the building and repairs of more residences in the city and suburbs. The larger cities are pretty sure of getting a large proportion of the proceeds from the large crops, larger, perhaps, than they ought to for the good of the country districts. But there is no denying the fact that business goes to the city; the town, and the man who goes after it. Therefore, every country town is vitally interested in the problem of keeping at home as much as possible of the money that is produced from the crops raised in its vicinity. It does seem to me that the thinking men of a town should realize this and act upon it more than they do. No doubt but there are individuals in every town who do realize it. Moreover, they realize also their own helplessness in stemming the current against them, for in addition to the forces from without, they have to contend with the indifference of the disorganized elements of their own communities.

This is the position that many intelligent lumbermen are in today. They know that an above the average crop has been raised in their territory and that fair prices are being paid for it in the market. The question with them is, have we the sense and courage to obtain a legitimate share in this created wealth at the point of production, or are we to go on as we have, fighting among ourselves and letting what we are entitled to slip through our fingers by reason of sheer inability to hold it? Is it not a fact that we lumbermen look forward to a promised good crop and count on the good trade we are going to have and then when this materializes, we haven't business sense enough to get the profit we ought to have out of it? When the season is ended we look back and see what fools we have been to let all that money we might have had get away from us. Then we begin to think of the next year and its possibilities for recuperating in making it up. But the next year comes and we do the same thing over again. If we do learn to do better, we learn it mighty slowly. Now here is this mighty crop ahead of you being harvested, stored and marketed.

What Will the Local Merchant Get?

How much are you going to get out of it? How are you going to play the game with the "other fellow" so that both will get fair prices for the business that is done? Will you think more of getting business than making profits? Which shall it be, business with fair profits or business with little or no profits? Individually, of course, we want the business with fair profits, but when there is local competition we are debarred from exercising wholly our own choice. The "other fellow" also wants the same thing. This being the case how is it to be arranged so that this end will be obtained? The child-like simple way is to agree on a fixed price list but this is too raw; besides, it is obsolete and the laws of the state forbid it. It is obsolete because it is unbusiness like and the resort of business men who are too weak to trust each other in a fair, honest competition. Of course, you understand I am alluding to cases where the attempt is made to equalize unequal men and where each is afraid to trust the other without a bond of some kind.

The present tangle in Congress over the anti-trust bills is a good deal owing to the inability to determine what is fair, and unfair competition. The trouble with this in business is that every business man is his own judge and sees only his own side of the case and therefore is naturally inclined to be prejudiced in his own favor. This is why almost invariably we blame the "other fellow" for breaking over the line of fairness. He thinks the same of us, and there we are at "logger heads" over something that one has judged to be fair to himself.

When there are two or more yards in a town owned by opposing interests it is extremely difficult to avoid more or less of acrimony of feeling and misunderstandings. I have been "through the mill" in this respect and know what it is to be working in the dark regarding my competitors. I have lain awake nights studying out schemes to hold my own against them. I have done almost everything but go into a pool, and I never but once agreed on a price list.

After many years of experience of following the usual way of dealing with local competition I at last became convinced that the only logical way of dealing with a competitor was to get on friendly terms with him and maintain this harmony no matter what might come up between us. I confess it was an almighty hard thing for me to do at first and it was several years before I could bend my pride of independence to conform to the harmonizing of our relations. I have swallowed some bitter pills sometimes over it, but I found in time that in governing myself I was better able to govern things that worked for harmony of feeling and action between us. The latter third of my business life in a retail yard was governed on these lines of action, and I can honestly say it is the better way, and the only way to make the most in the long run out of a competitive situation.

You Must Give and Take

In a talk that Captain Hunter gave us at one of our conventions he said this, "to be happy you must give; to be successful you must take. And to be both happy and successful you must give and take." I have never forgotten these words of practical wisdom and I know they have influenced me many times since. I want you too, to learn these words and hang them up on the walls of your memory, for in them lies the gist of the principles you should observe in your relation with a local competitor as well as with everybody else with whom you may have dealing. A give and take policy is not easy to adopt or carry into practice. But nothing that is worth while is easy for it means more or less sacrifice of feeling and freedom. The reflex action, however, fully repays for it all.

This reciprocal policy of dealing has not, of course, much chance to operate in the coming in contact with mail order competition, because of the absence of the personal relations. But if you are in harmonious relations with your local competitor you both can co-operate to meet it more effectively. It is better for business and profits to unite in meeting a common foe, than to be split up and fighting among ourselves and letting the profits slip past both of us. It is better for profits also that a fair division of the trade is had, than for one man to get two-thirds of it and not make any more than he would with only the half.

I remember one time after the yards had got through invoicing I met my competitor and we had a friendly talk. We both felt somewhat chastened in spirit because of the good business there had been that year, yet our profits didn't correspond with it. We got to figuring over it and concluded that through our own foolishness there had been lost what would have been a fair profit for one yard. Getting together as we did at that time was the beginning of a better feeling and understanding between us and from that time on we both sold as much lumber and made a deal more money for our yards. The public, as far as we ever heard was as well satisfied as before. I don't believe, you understand, in gouging the public, for in so doing, it is bound to react in dissatisfaction and antagonism to the yards. But I have yet to know of a community complaining where a dealer is fair, just and reasonable in the margin of profit he takes.

A policy of robbing one man and giving it to another is one that is bound to be found out in time and produce hard feelings and this always results from a "scrapping" condition between the yards. If a man gets a bill figured at one yard and the other dealer cuts it $50 it is very apt to cause that man to think that the first dealer was trying to "hold him up" when the real reason for it was the business antagonism carried to extreme between the two dealers, which in many cases verges on personal enmity. In a case of this kind the dealer who tries to play a hold up game, as the man thought, not only loses the bill, but he also produces a feeling in that party's mind that will keep him away from the yard ever after, and besides, he will tell his friends how he saved $50 on that bill. Now, the same thing may happen to the other dealer and he may lose a bill with a similar saving to the party who buys it at the other yard. He has the same feeling as the other man had, and so it works out that one dealer has almost the same number of enemies as his competitor. So, nothing is gained in this respect and both hold the same empty sack at the end of the year.

Things That Are Overlooked

I think we don't realize as much as we should the increasing cost of carrying on business and the corresponding decrease in the percentage of profit. The business calls for more and more service and with the stimulus of advanced ideas we give it to the public. But we continue to cling to the old idea of getting business at the expense, not of the public, but of our competitor, and ourselves. We indulge, too much, our personal feelings of rivalry with each other instead of exercising our business sense of profit. In the excitement of the game we forget the sense of proportion between volume of business and percentage of profit. We ignore the fact also that we are making

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each other pay for the indulgence of our rivalry and the public gets the benefit at our expense.

No doubt there will be many managers of line yards read this and they will wonder how they are going to get their share of the business this fall without doing it in the same old competitive way. I know in many cases a line yard manager is "twixt the devil and the deep sea," in the matter of securing a good volume of business and an equally good profit. But he is in competition with another line yard manager who is in the same fix, and over both of them hangs the menace of mail order competition and back of everything in the case is the natural desire on the part of both of them for an increase in salary. Now a manager naturally thinks that his salary ought to be proportioned to the amount of work he does, while, as a matter of fact it is usually based on the amount of profit he produces for the owners of the yard. When a line yard owner looks over the yearly returns from his yards and sees one of them showing a good volume of business but a low percentage of profits, he is not inclined to feel justified in granting a request for a salary increase to the manager of that yard. If, on the other hand, the net profits correspond to the amount of business done he will be more apt to give that manager a raise if he asks for it. So you see, my friend, it is not so much what you do as the results of what you have done that appeals most to the man who has invested his money in the yard.

Now, my boy, if you want your salary raised next January or a better position than you have, remember that it is the amount of profit you are going to get out of this big grain crop, and what will show up in the yard returns at headquarters at the close of the year that will weigh heaviest on the scale for you as a valuable man to have and retain. Just suppose now that you owned a yard and hired a man to run it for you. Would you not figure to pay him a salary according to the net profits of the business he was doing? Suppose he hit you for a raise, and you were paying all the yard could afford under his management, wouldn't you feel like telling him to go ahead and roll up a larger percentage of net profits and then you could afford to and would give him what he asked? This is the way you should look at this question of your remuneration. Men are not employed simply for their benefit, but the employer hires them to make money out of their services. Therefore, the more valuable the services in producing results the greater the justice and ability to pay in increased compensation.

Rewarded According to Results

Two men are in a town each running a yard for different owners each of which keeps track of the business by having daily reports of the yard's business sent to him. These two men have conflicting interests in a business way, as each wants to make a good showing on their daily reports. At the same time, their personal interests are practically identical, one with the other, as each is working on a salary that will be increased or lowered for the same reasons. Now, isn't it a senseless piece of business for these two fellows to be business enemies and thus work against their own personal interests through decreasing their yard's profits, and their own chances for a salary raise? It really looks stupid when you view it from the point of their own financial interests. What glory is it for them to best each other out of bills by cutting the "stuffing" out of them, and thereby lowering their own chances for an advance? Did you ever think of it in this way? When you are boosting your trade by sacrificing profits, you are knocking each other by losing what you are at the bottom working for. Don't think for a moment that this is a mere theory I am giving you. I have been on the inside and talked with a good many line yard owners enough to know something of how they size up their managers in their money-making capacities, and believe me, I am giving you a boiled down summary of their experiences and views on this subject.

Talking with one last winter he said, "we have two or three men who are 'cracker jacks' to get business but somehow they don't seem to know how to make money out of it. They do enough, seemingly, to warrant a better salary than we are paying them, but the earnings of their yards won't warrant it." There are business men in other lines, you and I know them, who always seem to be having a good trade and yet through not having the faculty of making money, they don't have what the volume of their business should give them. Doubtless you would like to know just what you are worth to the yard you are running. Most managers would. Some would be surprised, however, to find out they are not worth as much as they think they are, judging by the amount of hard work they do. Others would like to know to stiffen their backbone in asking for a raise. In a line of yards no doubt some managers are getting less than their yard profits entitle them to, while others are getting more. But in order to keep up the average profit for the whole the good men are made to make up for the deficiencies of the inferior ones.

My opinion is that a manager who is competent to run a yard should also have the ability to know what profits the yard is making or at least approximately so, not particularly for the purpose of asking for a raise but rather that he may use this knowledge to guide him. He should also know the cost of doing business at his yard—and I think this is something that yard owners should tell everyone of their managers—for a man who don't know all this is working in the dark and his competitive disposition is more liable to do business at the expense of profit. With the knowledge to guide him it will act as a brake on his ambition to get ahead of the other fellow by cutting under him. There is too much of this "go it blind" among the managers in the line yard systems and it is not wholly their fault either. Putting two men in a town and telling them to get the business is not enough. They should be instructed how to work for profits and held responsible for securing a certain percentage of profits. But they can't know when they are doing this unless they are acquainted with the boundary line between cost and profit.

When a manager is set down in a town to take charge of a yard he naturally thinks that his greatest problem is to get acquainted with as many people as possible and secure their good will and trade. This, of course, is one of the absolute essentials to his success in getting business. But over in the other yard is really his greatest problem—the manager of that yard—for on the relations formed and established with him largely depends the question of the profitable success of the yard under his management.

I know this is contrary to the usual attitude assumed by young men when they are placed in charge of a yard. The usual way is to ignore the "other fellow" and feel him out and gradually get to know his ways of doing business by the figuring contests between them. They depend also on the tales they hear of him from those of his disgruntled carpenters and other customers who have left him for sundry and various reasons which the new manager only hears the one side of. After a while, perhaps, the two managers meet in person, shake hands, "glad to know you," and all that sort of conversation that doesn't mean anything, but anything pertaining to the business approaching a mutual understanding of future action is studiously avoided.

Now, the first thing for competitors to do should be to get right with each other and be frank and open in discussing the situation and conditions under which both have to work and meet. If they are two managers of line yards it should be understood that good profits for their respective yards mean the probability of better salaries for both, whereas they have nothing to gain of a personal financial interest by the cheap method of cutting prices to get business away from each other. Let the central idea be that of profits, ever remembering that the owners of the yards will use this as the measuring stick of their abilities. All there is in the business of that place for them personally is their salaries and if they can help each other to make good profits they at the same time help each other toward better salaries.

Learned the Lesson

This idea was brought close home to me once by a competitor who had more sense than I had. We were both managers and for some time had been ripping things wide open on our employers' capital. It was one Fourth of July and we were at a picnic. He came over and proposed a walk together out in the woods where the crowd couldn't see us. "Now," said he, "what's the use of us two acting the fool in doing business as we have been doing? We are making no money for our yards, and if we keep on like this the chances are we'll either lose our jobs, or have our salaries reduced, or, at best, continue on our present salaries which are low enough, with our growing families. You want a raise and so do I, but we won't get it at the rate we are going. Why can't we arrange it some way whereby the trade will be divided and bills be sold without any such low cutting as we've been doing?" Much more was said between us in the way of explanations and clearing up points of misunderstanding. He proposed an agreed price list but I refusel because of one previous experience that was not satisfactory nor honorable to both parties. But, we did agree to respect each other's trade in not trying to get away what we knew to be regular customers of each yard, and not to cut below a certain percentage of profit on bills. We knew pretty well each other's yard lists and they were practically the same because there was no difference to speak of in what our stocks cost.

Well, we separated and went to work on the new basis of good feeling and understanding. There was a big crop that year and business was heavy all the fall. When something occurred to make us question the reason, we met and talked it over, and in thus meeting frequently we got to know more of each other in every way. From that time on our own trade came naturally to us without price cutting and the volume of trade was practically the same at each yard as it was before when we were cutting and slashing prices and living at enmity with each other.

Every story has a moral or a sequel and the sequel to our action in this case was that we both received a substantial raise in our salaries the next year and the next year after, too. Ever since then I've

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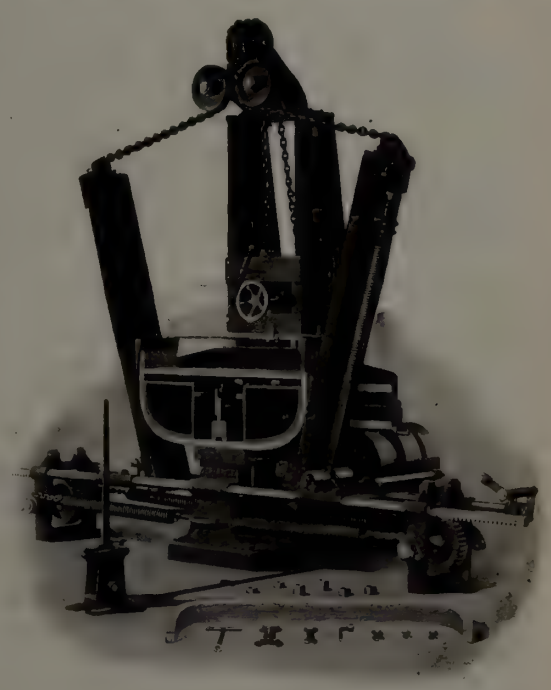

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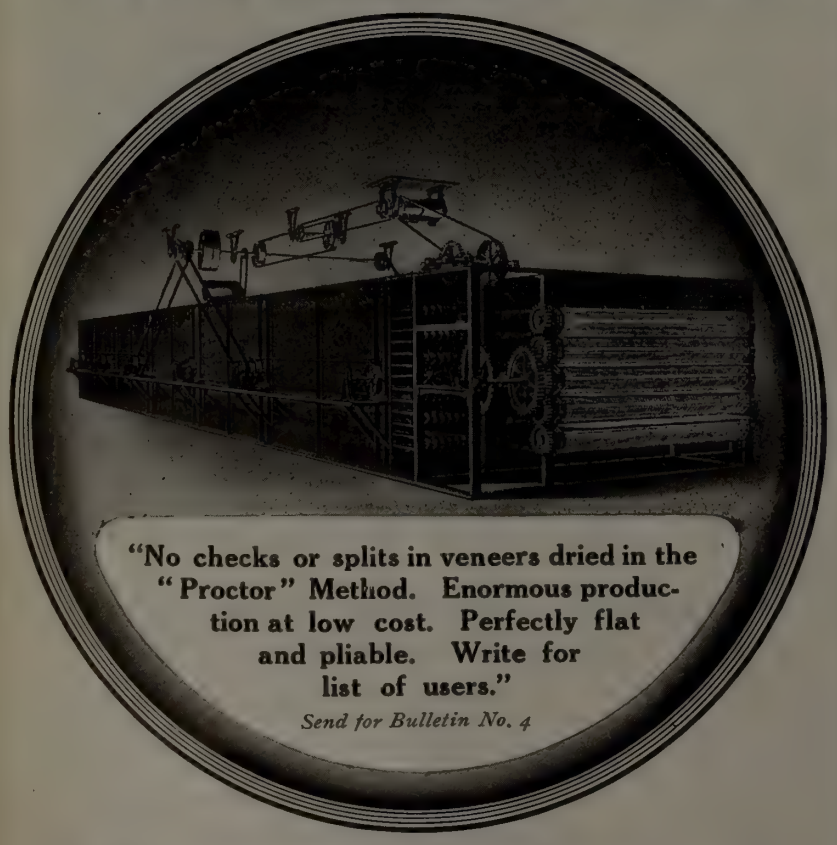

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Send for Bulletin No. 4

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Philadelphia, Pa.

been obsessed with the idea of profits and have learned to look on "scrapping" conditions as being wholly unnecessary and they can be avoided by injecting common sense into the relations of competitors.

After you have read this all over, read it again and study it over, and if it applies to your case just consider this big crop that is going to be marketed and how much more you will get of it for your yard if you and your competitor get together, throw all your cards on the table, face up, and agree to be decent and pursue a fair "give and take" policy with each other. Put your temper and suspicion under lock and key and throw away the key.

C. H. Ketridge, in the Mississippi Valley Lumberman.

Northern Hemlock and Hardwoods

The Northern Hemlock & Hardwood Manufacturers' Association held its midsummer meeting recently, and reports read at that time show that for the six months ending June 30 there was a decrease in hemlock cut of 4 per cent and a decrease in hemlock shipments of 11 per cent. The hardwood cut showed an increase of 14 per cent. over the corresponding period last year and a decrease in hardwood shipments of 17 per cent., or an increase in total cut of 6 per cent and an increase in total shipments of 13 per cent. The Michigan manufacturers found that it is rather hard to make comparisons of stocks in pile at present with those of a year ago, for last year stocks were away below normal—lower than any other time since 1909—and the demand was above normal. Statistics show that members of the Michigan Hardwood Manufacturers' Association have 65,000,000 feet more on hand at primary points than a year ago. But taking into consideration that nearly 40 per cent. of this excess is in No. 3, the situation is considered most favorable, for this stock is one of the best movers. Wisconsin manufacturers report that in ninety days all of the No. 3 on hand will be practically wiped out by the heavy demand for grain doors. Hemlock stocks are not large and are considered good property, and with the increased demand this fall, now expected, it is figured that hemlock prices will advance to the position they held a year ago. The northern manufacturer, therefore, is in an exceedingly good position to take advantage of the distinct and healthy trade revival that is looked for a little later.

Cooperage Possibilities of Fir

That a very good market for fir staves for making small grape barrels, such as are used in great quantities in Spain, will be opened up to Pacific Coast stave manufacturers on the opening of the Panama canal is the opinion of the United States Consular Agent at Almeria, Spain, who has been investigating the stave possibilities at the request of Pacific Coast manufacturers. Mr. Yost has found that something like 2,000,000 grape barrels are set up each year at Almeria. The staves are 20 inches long, three inches wide and one-quarter inch thick and are packed in bundles of 32 or 33 staves. Many of the staves used in Almeria are manufactured in Western Spain and in Portugal and set up where used. About one-third of the 2,000,000 staves used at Almeria are of oak and shipped largely from the United States. "There is only one lumber dealer of importance in this city," the report adds. "There is little doubt that once the Panama canal is open to traffic, Oregon and Washington lumber will be enabled to compete successfully with the product from the Southern states or with the product from Scandinavia, in the markets of Southern Spain. Practically all the lumber used here is imported from foreign countries."

Timber Industry in Russian Far East

A timber company of Melbourne, Australia, and Siberia, has decided to move part of its plant from Geelong, State of Victoria, Australia, to Imperial Harbor, on the Sea of Japan, Maritime Province. The largest part of the machinery in this plant is of American manufacture. This decision of the company means that sawn material instead of round logs will be shipped to the Australian market. The sawmill will be the largest in the Russian Far East and will bring about considerable development in the soft-wood industry of that region. The Russian Volunteer Fleet is making great efforts to facilitate the shipment of timber from Eastern Siberia to China, India, Australia, New Zealand, South Africa, and European ports by the establishment of a Vladivostok-Baltic Sea line. This company is understood to be carrying out the desire of the Ministry and the fixing of minimum freight rates for timber is encouraged by the Government.

The New York State College of Forestry at Syracuse has estimated that the utilization of the maturing and dead timber on the New York State Forest Reserve of something over 1,600,000 acres should yield a revenue of over $1,000,000 every year and this without impairing the value of the forest for future timber supply and watershed protection.

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EDGINGS

Ontario

The Parry Sound Barrel and Manufacturing Company, Limited, has been incorporated with head office at Parry Sound and an authorized capital stock of $500,000.

The Trent Cooperage Company, Trenton, Ont., recently lost a large quantity of lumber by fire. The loss amounted to $10,000, which is partly covered by insurance.

The Wallaceburg Lumber Company, Limited, Wallaceburg, Ont., has been incorporated with authorized capital of $40,000; David A. Gordon, Donald D. Gordon, Harry Turnbull and others are interested.

The planing mill belonging to H. A. Marshall, 507 Davenport Road, Toronto, was recently destroyed by fire. The building and machinery were completely destroyed. The loss amounted to $10,000.

George & Laurie, who have lumber interests at Owen Sound, Ontario, have bought the Empress Shingle Mill at Cassidy's Siding, on the E. & N. Railway, Vancouver Island, B.C. It is understood that this is the start of larger operations on their part.

The Robinson Cabinet Manufacturing Company, Limited, has been incorporated with a capital of $40,000, with head office at Walkerville, Ont. The provisional directors are H. S. Robinson, of Toledo, Ohio, U.S.A., and C. A. and J. J. Rukamp, of Detroit, Mich., U.S.A.

Arnold & Bell, Limited, has been incorporated with a capital of $100,000, with head office at Sudbury, Ont., to carry on business as lumber merchants. The provisional directors are W. J. Bell, J. P. Reid, G. J. Valin, C. McCrea and A. J. Manley, all of Sudbury, Ont.

A report from Fort Frances, Ont., indicates that the Ontario and Minnesota Power Company are considering the erection of another paper mill at that point. The company recently bought vacant real estate to the value of $20,000, which would be suitable for a proposition of this nature, and they have stated that if they receive sufficient encouragement and assistance from the town they will build a couple more large mills.

The offices of the Spanish River Pulp and Paper Mills, Limited, are now established at Sault Ste. Marie, Ont., at the plant of the Lake Superior Paper Company, which was merged with Spanish River over a year ago. The former offices on King Street, Toronto, were closed some time ago and certain departments of the firm's business are now conducted from the offices of the Lake Superior Corporation in the Traders Bank Building.

Eastern Canada

Shareholders of the Laurentide Company will meet on September 23 to sanction an issue of $4,000,000 6 per cent. mortgage bonds, a portion of the funds being required for the extension of the plant and the new power development at Grand'Mere, P.Q.

Brownsburg Furniture, Limited, has been incorporated with a capital of $49,000, with head office at Brownsburg, Que. The provisional directors are J. E. A. Decelles, of Montreal, Que.; P. Lepine, V. Bouchard, P. Goyette, and R. Bertrand, of Brownsburg, Que.

The Two Pauls, Limited, has been incorporated with a capital of $10,000, with head office at Danville, Que., to carry on business as lumber merchants. The provisional directors are F. J. Paul, C. C. Bernard, G. J. Hamilton and W. N. Paul, all of Danville, Que.

The Ontario Paper Company, of Thorold, have purchased the timber limits at Ha-Ha Bay, on the Saguenay River, P.Q., formerly owned by the Battle Island Pulp Company, of Fulton, N.Y. The limits comprise 27,000 acres of freehold and 100,000 acres of leasehold land. The price was $300,000.

John Maloney's new sawmill at Chatham Road, N.B., has been completed. The mill is 120 ft. x 40 ft. and stands upon crib work 300 feet out from the low water shore line. It is equipped with a rotary saw, resaw, double edger, trimmers, and lath machine. Two shingle machines will be put in next year. The mill will cut from fifty to seventy-five thousand feet per day. A deep water wharf will be built immediately in connection with the mill. Mr. Maloney's mill at Barnaby Ridge will be shut down.

The Lumber Corporation of Nova Scotia, Limited, which owns about 569 square miles of timber and pulpwood lying on the eastern seaboard of Nova Scotia, is offering $1,000,000 first mortgage twenty-year sinking fund gold bonds. The security for these bonds will be the company's lands, timber, leases, mill, buildings, fixed plant and machinery, water rights and concessions. The property is estimated to contain timber and pulpwood valued at nearly $5,000,000. The board of directors includes the Earl of Denbigh, John Howard, agent-general in London for the province of Nova Scotia; George S. McClearn, Liverpool, N.S., president of the McClearn Lumber Company, Limited; and D. H. Foresman, Williamsport, Pa., formerly general superintendent of the Central Pennsylvania Lumber Company and former manager of the Davison Lumber Company, of Bridgewater, N.S., who is now efficiency engineer to William Whitmer & Company, Philadelphia. The company's bankers are the Royal Bank of Canada.

A meeting of the bondholders of the East Canada Power and Pulp Company, in which Sir Rodolphe Forget is largely interested, was called for August 31st, at which it was expected that a full report would be presented, covering the company's transactions since its inception. This company was organized in 1910 to build and operate a pulp mill and a 25,000 h.p. hydro-electric plant. The company met with financial difficulties early in its history. It is capitalized at $1,500,000 of ordinary stock, all of which was issued and fully paid up. There have also been issued $1,500,000 of consolidated 6 per cent. bonds. The company owns some very valuable property and it is be-

lieved that if it can be re-organized on a conservative basis the bondholders would not lose heavily. A report from Montreal states that, with the exception of pulp and pulpwood, accounts, and a few materials, the property of the East Canada Pulp and Power Company, Limited, in liquidation, is to be sold by auction on September 22. The timber limits, held under provincial license, are approximately 392 square miles, and are situated in the Murray Bay River, P.Q., district. The company have also property on the east side of the harbor at Murray Bay, formerly belonging to the Laferriere Lumber Company. The sale will include the various mills, factories, dams, machinery, etc., and 740 shares of the capital stock of the Labrador Electric and Pulp Company, with $50,000 bonds of the last named company.

Western Canada

The H. J. Wells Lumber Company, Edmonton, Alta., recently commenced business.

The Parks Lumber Company, Limited, of Verwood, Sask., has been incorporated with a capital stock of $25,000.

The Kamsack Lumber Company has been registered at Grand View, Man. Mr. Theo. A. Burrows is the proprietor.

E. R. Vipond, who is in the pole business on the Arrow Lakes, is establishing a shingle mill and box factory at Nakusp.

Messrs. Finch, Withers & Company, lumber merchants, of Strathclair, Man., have been succeeded by the Finch Company.

The Dissette MacConnell Lumber Company, Limited, Victoria, B.C., has been incorporated with an authorized capital of $25,000.

The North Canada Lumber Company, Limited, has been incorporated with a capital of $100,000, with head office at Prince Albert, Sask.

The Beaver River Lumber Company, Limited, has been incorporated with a capital of $50,000, with head office at New Westminster, B.C.

The Barclay Shingle Mills, Ltd., is the name of a company which will operate the Port Haney, B.C., plant. Associated with J. A. McKercher in the business are W. J. Barclay and Thomas Paradis.

The sawmill belonging to J. B. Winlaw, at Winlaw, B.C., was recently destroyed by fire. The loss, which included the section house and 6,000,000 feet of lumber, is estimated at $120,000, on which there was insurance of $60,000.

Western Woodenware, Limited, has been incorporated with a capital of $20,000, with head office at Winnipeg, Man. The provisional directors are H. F. Tench, J. F. Waller, L. J. Carey, W. B. K. MacRury and N. B. Henry, all of Winnipeg, Man.

The sawmill belonging to the Fern Ridge Lumber Company at Fern Ridge, B.C., was recently destroyed by fire. The loss amounted to $150,000. There was insurance on the mill to the amount of $72,000 and on the stocks to the amount of $30,000.

A company is shortly to be floated for the purchase of growing timber over a large area at Grey's Creek, Loughbourough Inlet, B.C., from which it is estimated that over two and a half billion feet of merchantable timber will be procurable, says the Timber Trades Journal of London, Eng.

The Colonial sash and door factory has started operations at Huntingdon, B.C., the adjoining town to Sumas, on the boundary line. The principals of the company are A. Williams, Vancouver, president; R. L. Gallinger, of Washington, manager, and H. M. Morris, a practical man with English experience.

Frank DuBois, former manager of the Elk Lumber Company, Fernic, B.C., bought 2,100 acres of crown granted timber lands east of Fernie from the Black Estate, Winnipeg. These limits were previously held by the Hosmer Lumber Company. There is a mill on the property, but it has been idle since 1907.

The P. W. Fau Vel Lumber Company, with offices in the Holden Building, Vancouver, B.C., is completing a shingle mill at Lake Burnaby, about 12 miles from the city. The P. W. Fau Vel Lumber Company operates two shingle mills of its own and in addition has contracts with others that are manufacturing shingles for it.

Large areas of timber on Vancouver Island are owned by the Washington-British Columbia Timber Company, of Walla Walla, Wash., which has secured registration in this Province. Officers of the company are: President, E. Blackburn, Walla Walla; vice-president, H. A. Gardner, Walla Walla; secretary, George H. Foster, Baker City, Ore.

C. E. Ayer, manager of the North Star Lumber Company, Elko, B.C., says his company will close down their planing mill at Elko in September indefinitely and also their mills at Jaffray and Cranbrook and get out of business in the Crow. These companies are controlled by John Hanbury, the well-known sash and door manufacturer, of Vancouver.

Mr. John B. Atchison, head of the firm of Atchison & Company, saw mill and building contractors, Cornwall, Ont., died recently of blood poisoning which set in as the result of a fracture of his right arm, received while cranking his automobile.

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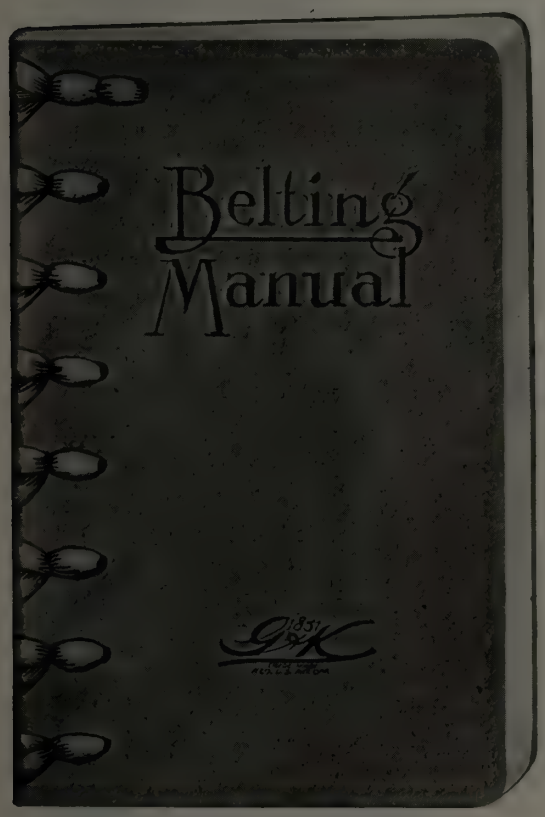

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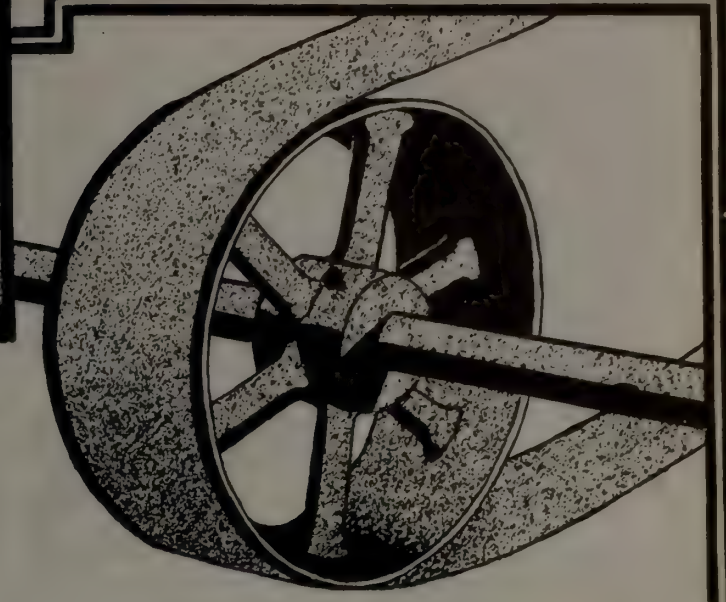


"Acme Waterproof" Leather Belting

This brand is especially well suited to the wet places in a saw or pulp mill and will run true as long as it is in service. When you are overhauling your mill equip it with "Goodhue Belts" and you will never regret it. They are honestly made of solid leather—every inch a good belt and they won't stretch.

Get our Details and Prices.

J. L. Goodhue & Company, Limited

DANVILLE, - QUE.

Run Easiest
Cut Fastest
Last Longest

"The Saws With a Temper"

Send for Cross-cut Saw Booklet giving complete instructions on caring for and selecting these saws

Disston Cross-Cut Saws

Henry Disston & Sons, Limited
Keystone Saw, Tool, Steel and File Works
TORONTO, CANADA
Branch at Vancouver, B.C.

We have had three-quarters of a century of experience.

Used in all the largest lumber camps in the world.

Rutherford's Stock Millwork

KLIMAX

If it's made of wood we can supply it. Our line of stock millwork embraces an immense variety of patterns in doors, newels, mouldings and other trim. Buy from our stock catalogue and you can save money and be sure of prompt shipment.

We are also equipped to cater for special detail work and keep a large plant in operation for this purpose.

The stocks we carry will always be found right up to the minute, and prices will be lower than obtainable elsewhere.

Write us for catalogue.

KORELOCK

The Wm. Rutherford & Sons

Company, Limited

Montreal

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS,

LONDON, CANADA **LIMITED**

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.

Locomotive Boiler on Skids

Atkins Inserted Tooth Cut Off Saw

The construction of this splendid Saw will appeal to you at once. It will save you lots of money if you have cut off work to do. It's the sensation of the Saw World. Making good wherever used.

Write for details and prices

E. C. Atkins & Company

Makers of Sterling Saws

Factory, Hamilton, Ont. **Vancouver Branch, 109 Powell St.**

? Have You an Invention

¶ If so, we can help you to obtain every dollar of its worth.

We possess the expert drafting and mechanical ability; the essential machine shop and equipment for developing practical models; the necessary knowledge for the proper investigation of patent records, etc., and the procedure on obtaining patents that will give you absolute protection.

We obtain and sell patents in every country. Write us for any information you desire.

The Patent Selling & Manufacturing Agency

James R. Cameron, M. E., Manager **Patent Office, Factory & Workshops, 206 Simcoe St., Toronto**

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better..	62 00	64 00
1½-in. No. 2 C. & B.	45 00	47 00
2-in. No. 2 cuts and better ..	47 00	49 00
4/4 No. 2 and 3 cuts		31 00
5/4 and 6/4 No. 2 and 3 cuts		37 00
8/4 No. 2 and 3 cuts		38 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	**25 00**	**26 00**
1 x 6 common and dressing ..	**27 00**	**29 00**
1 x 8 common and dressing ..	**27 00**	**29 00**
1 x 10 common and dressing ..	31 00	32 00
1 x 12 common and dressing..	34 00	36 00
1 x 10 and 12 mill cull stocks.		24 50
1-in. mill cull sidings		22 50
5/4 and 6/4 x 4 m.r., m.c. out		27 00
5/4 and 6/4 x 5 m.r., m.c. out.		27 00
5/4 and 6/4 x 6 m.r., m.c. out.		27 00
5/4 and 6/4 x 8 m.r., m.c. out.		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out		34 00
2 x 10 common		**26 00**
2 and 3 x 12 common		28 00
1 x 8 box and common	**23 50**	**24 50**
1 x 10 inch box and common.	**25 00**	**26 00**
1 x 12 inch box and common .		27 00
1-in. mill run sidings	**25 00**	**27 00**
1-in. mill run shorts		22 00
1-in. mill run Norway		**23 00**
2-in. mill run Norway		**25 00**
Norway, c. and cf. 1-in.	30 00	32 00
Norway, c. and cf. 1½-in. ...	33 00	35 00
Norway, c. and cf. 2-in.	33 00	35 00
Spruce mill culls		19 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft. ..		19 00
1 x 6-in. x 9 to 16 ft.		21 00
1 x 8-in. x 9 to 16 ft.		21 00
1 x 10 and 12 in. x 9 to 16 ft.		22 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		21 00
1-in. No. 2, 6-ft. to 16-ft.		17 00
2 x 4 to 12, 10 and 16 ft.		21 50
2 x 4 to 12-in., 12 and 14 ft. ..		21 50
2 x 4 to 12-in., 18 ft.		24 00
2 x 4 to 12-in., 20 ft.		26 00
2 x 4 to 12-in., 22 ft.		27 00
2 x 4 to 12-in., 24 ft.		28 00
2 x 4 to 12-in., 22 ft.		26 00
2 x 4 to 12 in., 18 ft.		24 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		17 00
Clear in B. C. cedar, kiln dried.		50 00
Douglas Fir		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12 x16, 16x16, 16x18, 18x18, 20x 20; up to 32 ft.		33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.		34 00
10x20, up to 32 ft.		34 50
6x18, 8x18, up to 32 ft.		35 00
6x20, 8x20, up to 32 ft.		36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 to 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath..	5 00
1½-in. No. 2 4-ft. lath	4 75
1½-in. 32-in. pine	2 65
1½-in. No. 1 4-ft. hemlock lath	4 00
1½-in. mill run hemlock lath	3 75
XX B. C. cedar shingles	2 35
XXX 6 butts to 2-in.	3 05
XXXX 6 to 23-16-in.	3 25
XXXXX	3 55

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4..	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4.	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4 ..	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4..	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4.	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds.	46 00
Red oak, plain 1st and 2nds, 4/4 ...	59 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	65 0
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4.	60 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	65 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common ..	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	**$52 00**	**54 00**
1¼-in. & 1½-in. x 8-in. & up	**55 00**	**58 00**
2-in. x 7-in. and up	**58 00**	**62 00**
No. 2 cuts 2 x 8-in. & up ..	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1¼-in.	**50 00**	**54 00**
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	**30 00**	**33 00**
Pine, No. 1 dressing strips ..	**29 00**	**30 00**
Pine, No. 1 dressing shorts ..	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips ..	**22 00**	**23 00**
Pine, 1-in. x 5-in. s.c. strips ..	**24 00**	**25 00**
Pine, 1-in. x 6-in. s.c. strips ..	**23 00**	**24 00**
Pine, 1-in. x 7-in. s.c. strips ..	**23 00**	**24 00**
Pine, 8 s.c., 12 ft. to 16 ft. ...	25 00	26 00
Pine, 1-in. x 10-in. M.R.	**27 00**	**28 00**
Pine, s.c. sidings, 1½ and 2-in.	**28 00**	**30 00**
Pine, s.c. strips 1-in.	**21 00**	**23 00**
1¼, 1½ and 2-in.	**24 00**	**26 00**
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:.		
1" x 4" and up, 6'-11'	17 50	18 00
1"x3" to 6", 12'-16'	**19 00**	**20 00**
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12 ...	**21 00**	**22 00**
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x 7" and up	**20 00**	**21 00**
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16' ..	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	**22 00**	**24 00**
1¼"x10" and up, 12'-16' ...	**22 00**	**24 00**
1½" & 2"x12" and up, 12'-16'	**25 00**	**26 00**
Spruce 1-in. clear (fine dressing and B)	**25 00**	**27 00**
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	**23 00**	**26 00**
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	65	70
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	7
By the dram, according to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$ 21 00	22 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. $54 00	
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00
Cuts and Better	
4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00
No. 1 Cuts	
1 in., 8 in. and up wide	**42 00**
1¼ in., 8-in. and up wide	**55 00**
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide....	**75 00**
4 in., 8-in. and up wide	85 00
No. 2 Cuts	
1 in., 6-in. and up wide	**31 00**
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	**62 00 65 00**
No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00
Common and Dressing Mill Run	
1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	**34 00**
1¼, 1½ and 2-in.	30 00
No. 1 Barn	
1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00
No. 2 Barn	
1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00
No. 3 Barn	
1 inch	21 00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00
Box	
No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00
Mill Culls	
Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00
Lath	
No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch $18 50	
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00
Flooring	
4 or 6 inch No. 1 ....$33 00	
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50
Shiplap—Finished	
4 inch $20 00	
6 inch	22 50
8, 10, 12 inch	23 50
Siding	
6 inch No. 1 ....$33 00	
6 inch No. 2	31 00
6 inch No. 3	24 50
Lath	
No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less M per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft. ...		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft. $21 50	
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
FLOORING	
No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00
SHIPLAP	
Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50
BOARDS—ROUGH OR S. 1 S.	
No. 1 common pine, 10 inch $31 00	
No. 2 common pine, 10 inch	26 00
No. 3 common pine, mixed widths ..	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ..	10 00
SHINGLES	
XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25
LATH	
No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4 ....$94 00	
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	66 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	52 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	53 00
No. 1 Moulding 5/4	55 00
No. 1 Moulding 6/4	56 00
No. 1 Moulding 8/4	58 00

(Continued on page 70)

Loans on Timber Lands

For Long Periods of Time in Amounts from $25,000 and up

We have been in the lumber business for over half a century.

We now control and operate a number of mills. We also loan money to lumbermen.

It will be to your advantage to deal with practical men who know the requirements of the lumber trade all over Canada.

Our business is to know the wants of the lumbermen and to meet them.

Ontario Bond Corporation of Canada, Limited

HAMILTON, ONTARIO

You'll be a vital part of the great Johns-Manville Continent-wide Roofing Service if you're a J-M dealer

This means that you will no longer be "up against" one hundred and one ordinary competitive roofings with their profit-killing prices. It means, further, that you will have back of you a remarkably extensive advertising campaign and a fifty-year-old organization which is as much concerned in the **Service rendered by its roofings** as in selling the roofings themselves.

And it means that you will be the only dealer in your town selling J-M Asbestos Roofing and J-M Regal Roofing—the world's STANDARD roofings always sold at a price that gives the dealer a LIBERAL profit.

Write TO-DAY to the Johns-Manville Branch House nearest you and ask for Special Dealer Proposition.

The Canadian
H. W. Johns-Manville Company, Limited

Manufacturers of Asbestos Roofings; Pipe Coverings; Packings; Brake Lining; Boiler Preservative; Fire Extinguishers; Cold Water Paint; Etc.

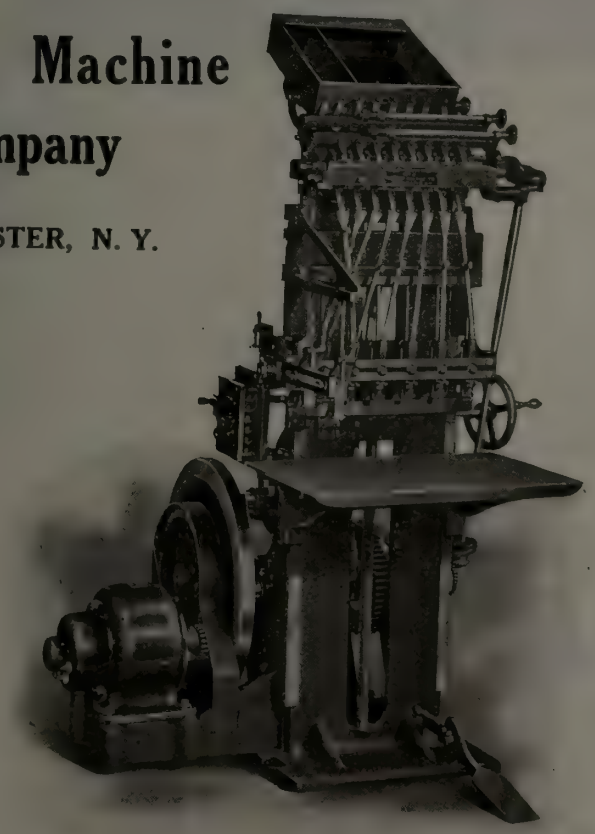
JOHNS-MANVILLE SERVICE COVERS THE CONTINENT

TORONTO MONTREAL WINNIPEG VANCOUVER

2539

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

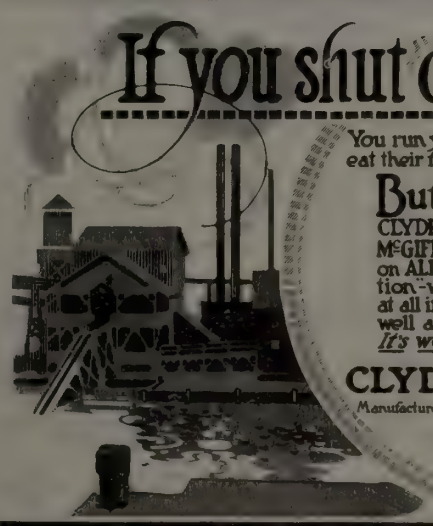
Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N. Y.

If you shut down your mill



You run your *teams* into the stables to eat their fool heads off *and the feed bill is a dead loss.*

But when you shut down your CLYDE REHAUL SKIDDERS and McGIFFERT LOADERS you shut down on ALL expenses except depreciation—which actually doesn't happen at all if you grease the machines up well and run them in under a roof *It's worth considering!*

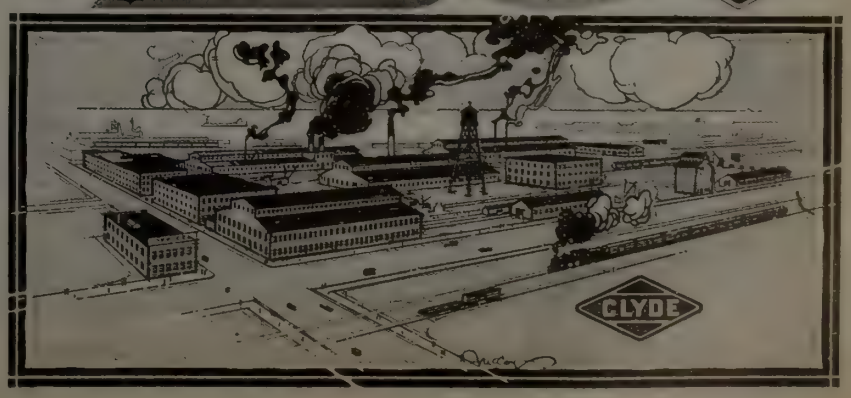
CLYDE IRON WORKS

Manufacturers of Machines for EVERY Logging Operation

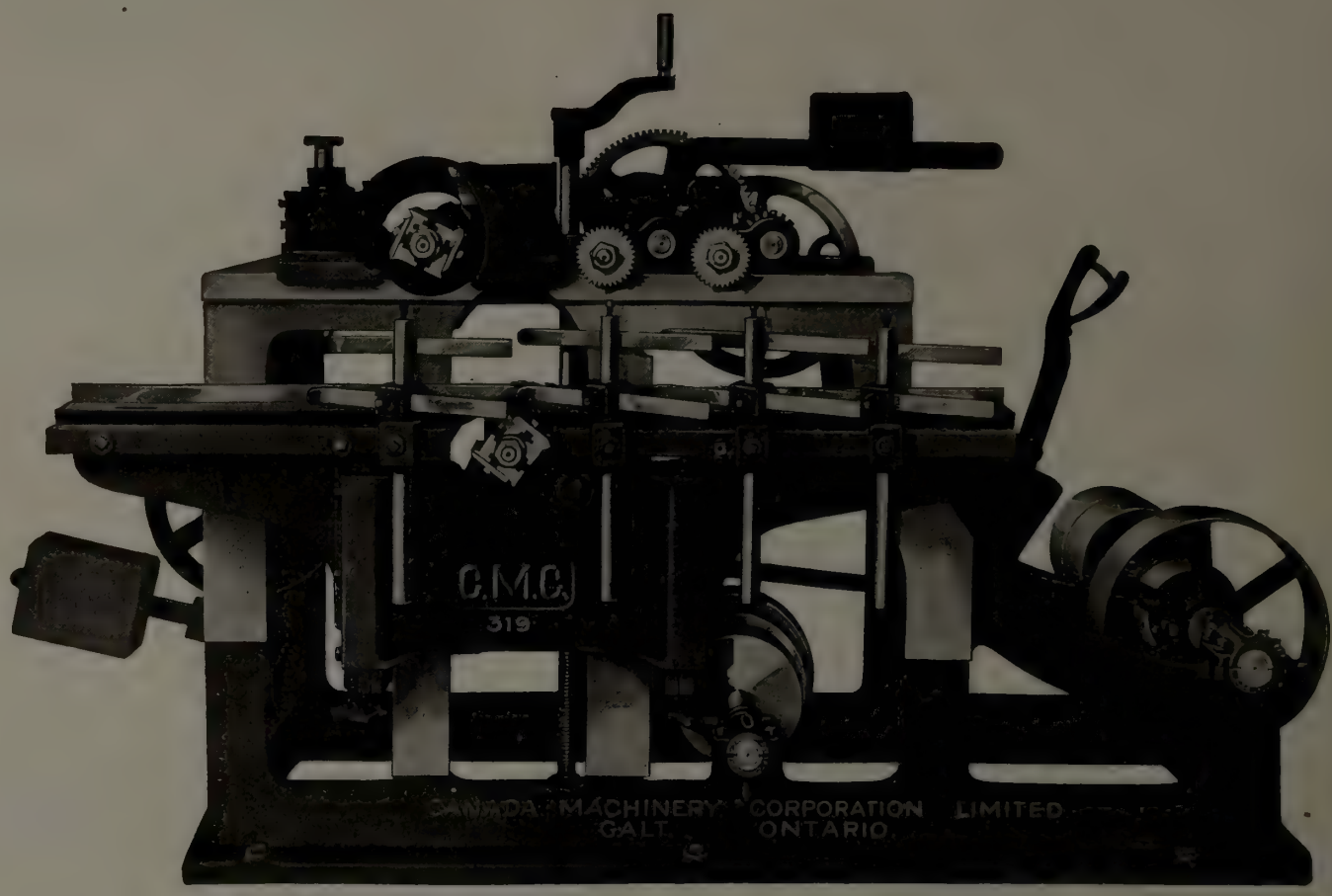
· DULUTH · U·S·A ·

"Great Part of the Northwest"

CLYDE



DOOR C.M.C. STICKER



No. 319 Double Door Sticker

Designed for sticking both edges of stiles and rails for doors and sash at one operation.

The feed rolls are made to swivel on the frame, a new "C.M.C." feature that meets with the approval of practical millmen. This arrangement enables the operator to adjust the lead of the rolls to suit the quality of the material, thus overcoming the difficulty often experienced with machines of this class.

Three rates of speed can be obtained, and the change made from one rate to another without stopping the machine, thus saving considerable time.

It will take stock from 2½ inches to 15 inches wide and up to 4 inches thick.

Descriptive Bulletins on Request.

Canada Machinery Corporation, Limited

Galt - Ontario

BUILDERS OF HIGH GRADE WOODWORKING MACHINERY

YOUR KNIFE GRINDING

Should be done on a **Rogers - Buffalo** Full Automatic to get best results. Cut illustrates our Type "B" Grinder, with range from 54" to 130" Price $220 to $395.

We make a complete line of Knife Grinders and Saw Sharpeners, suited to every requirement.

Write for Catalogue.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N.Y.

DIXON'S Silica-Graphite PAINT

The natural combination of silica and graphite in this paint forms, upon drying, an exceptionally hard, durable veneer upon the metal surfaces which is practically a part of the metal itself. Such a coating resists the action of water, weather and fumes of all kinds, so that destructive corrosion is prevented. Send for "Protective Paint" Booklet No. 238B.

Made in JERSEY CITY, N. J. by the

Joseph Dixon Crucible Co.

Established 1827

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.

TORONTO, CANADA

WIRE and WIRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, **Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.**

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooperage.

The Laidlaw Bale-Tie Co., Limited

Winnipeg — Harry F. Moulden & Son
HAMILTON, ONTARIO
Vancouver — George W. Laidlaw

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

Patented Nov. 29-1892
July 19-1910

HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

The Peter Hay Knife Co., Limited

GALT, ONTARIO

MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

D. C. CAMERON, President and General Manager.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	33 - 35	23 - 25	17 - 19
5/4 to 8/4	36 - 38	25 - 27	17 - 19
10/4 to 16/4	40 - 42	30 - 32	22 - 24

RED BIRCH

4/4	44 - 46	30 - 32	18 - 20
5/4 to 8/4	46 - 48	32 - 34	20 - 22

SAP BIRCH

4/4	38 - 40	26 - 28	20 - 22
5/4 and up	40 - 42	28 - 30	20 - 22

SOFT ELM

4/4	38 - 40	27 - 29	18 - 20
5, 6 & 8/4	40 - 42	29 - 31	20 - 22

BASSWOOD

4/4	36 - 38	27 - 29	19 - 21
Thicker	38 - 40	29 - 31	21 - 23

PLAIN OAK

4/4	54 - 56	35 - 37	23 - 25
5/4 to 8/4	56 - 58	37 - 39	25 - 27

ASH, WHITE AND BROWN

4/4	48 - 50	30 - 32	21 - 23
5/4 to 8/4	55 - 57	32 - 34	22 - 24
10/4 and up	64 - 66	44 - 46	24 - 26

BOSTON, MASS.

White pine uppers, 1 to 2 in...	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00

Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 0	27 00
Spruce, 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce, 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1⅝-in. spruce laths	4 15	4 25
1½-in. spruce lath	3 75	3 80

New Brunswick Cedar Shingles

Extras		3 50
Clears		2 90
Second clears		2 75
Clear whites		2 45
Extra 1s (Clear whites out)		1 50
Extra 1s (Clear whites in)		1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40	3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Cedar Perfection, 5 butts to 2¾		4 80
Washington 16-in. 5 butts to 2-in. extra red clear		3 35

"DUXBAK" Waterproof Clothing

For outdoor wear this "Duxbak" cravenetted coat is just what many lumbermen are looking for. It is light in weight and absolutely guaranteed to be waterproof. The fabric permits of perfect ventilation.

Other "Duxbak" garments are norfolk jackets, long trousers, knee pants, riding breeches, cartridge vests and a variety of caps and leggings, for both men and women.

Write us for booklet.

F. M. DIXON

59 St. Peter St. - Montreal

I would rather stroke a bird's wings than woman's hair.
And the fragrance of the rose pressed against my lips
Is sweeter and more sincere than woman's kisses.
—El-Rami.

Those Who Have Read:
"The Soul of Lillith," written by Marie Corelli, no doubt have been struck by the cynical expressions of El-Rami as to women's constancy. Throughout the whole novel there is a tone of doubt of women in general, though in discussion with Feraz, his brother, he admits there are clever women and faithful women; but further states: "we men seldom choose them, we are fools and we pay for our folly."

There is No Doubt of the high quality of the goods we manufacture, **The High Quality is Constant.**

Take for instance

Harris Heavy Pressure

"the babbitt metal without a fault."

We have spent years in experimenting in our chemical laboratory to produce a babbitt metal which would fill the bill in 95 cases out of 100 where genuine babbitt is used and our sales, which are increasing most rapidly, give evidence that the quality is constant and the metal reliable.

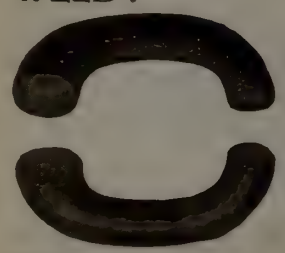
Engineers know that H.H.P. is built for service.
H.H.P. is the best babbitt metal for all general machinery bearings.
H.H.P. will not crack or squeeze out.
H.H.P. runs cool at any speed.
H.H.P. is copper-coated and copper-hardened.

Our reputation and guarantee is back of every pound
Write for Prices

Canada Metal Co., Limited
Head Office, Toronto, Ont.
Branch Factories: Montreal, Winnipeg

"AJAX" Loading Chain

WELD:



Sectional view showing comparative size of weld and chain.

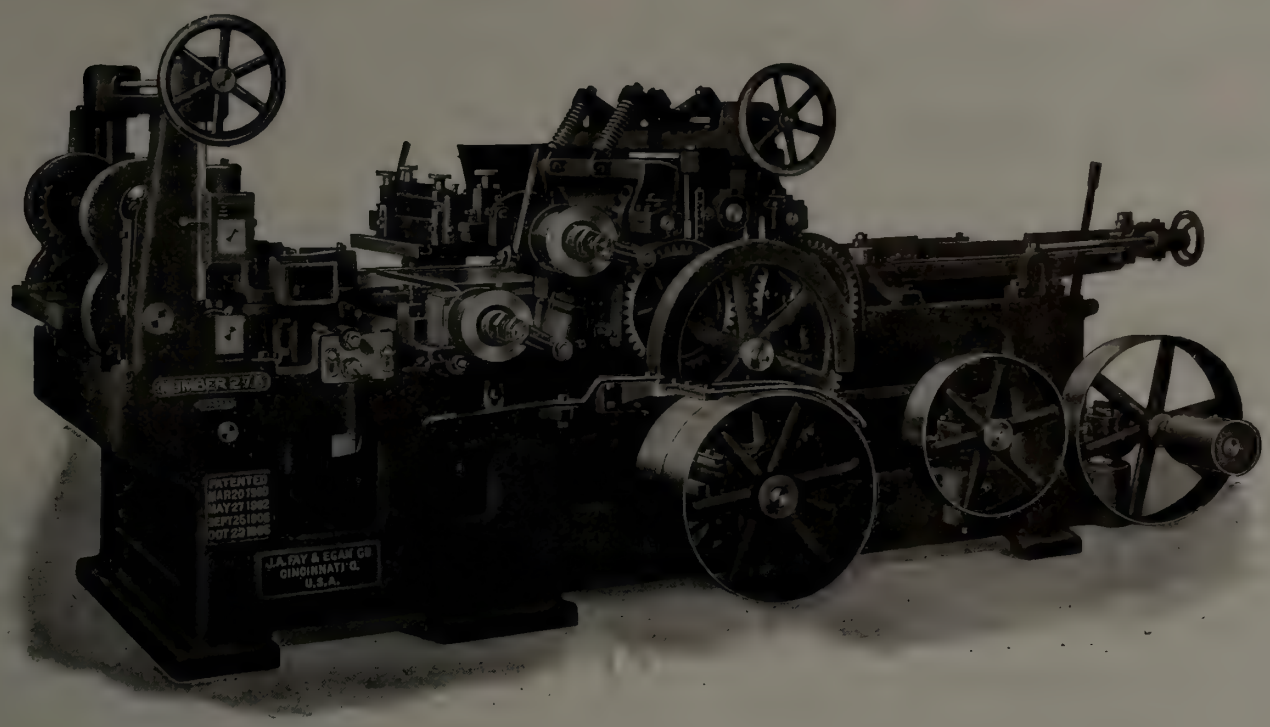
Experience has taught us that a good chain cannot be made from cheap material. In Ajax chains you get the best steel obtainable and every weld guaranteed. Ajax chain is guaranteed to pull stiff before breaking.

MANUFACTURED ONLY BY

Standard Chain Company, Pittsburgh, Pa.

MONTREAL—Alexander Gibb, St. Nicholas Bldg. **WINNIPEG—Bissett & Loucks**
VANCOUVER—John Burns, 329 Railway St.

Our Claims for the FAY — EGAN "LIGHTNING" No. 275 Sustained



This medium weight and medium priced Planer and Matcher is daily Proving our claims as the greatest general purpose machine

The letter from Shaw Bros. Co., Macon, Ga., is typical of many others we have received from satisfied users of the 275.

J. A. FAY & EGAN CO.,
Cincinnati, Ohio.

Gentlemen: We purchased one of your No. 275 Matchers, size 16 x 8, a little over a year ago, and have been running it continually ever since, working all sorts of material on it from ½-in. ceiling to sizing 16 x 8 timbers. In fact, most of the time it has been doing the work of a timber sizer, and I must confess in all my 25 years of experience I have never seen its equal for the amount of work it will turn out. It has the most wonderful feed for its size, and I have run all makes of machines.

No one need be afraid of buying one of these machines for general all round work and I heartily recommend it to any wanting such a tool. We have not had a cent of repairs, and if we could not secure a duplicate of it, would not take twice the amount we paid for it.

We congratulate you on the development of such a machine, and wish for you the hearty success you deserve. We are also well pleased with the other machines we purchased from you.

Yours very truly,
Shaw Bros. Company, Macon, Ga.
By David Shaw, President.

The actual results obtained on the No. 275 are the strongest proofs of the value of this machine —note in the letter, herewith, the wide range of work—½" ceiling to sizing 16 x 8.

In other mills, the 275 has taken care of any work, either soft or hard wood, within the limits of its capacity and has given the same satisfaction.

Besides matching and surfacing, it will make flooring and moulding up to 1¼" deep.

The initial cost and operating expense of the 275 is well within the means of every planing mill and factory owner and, once installed, it will make big money and soon pay for itself.

There are many mill owners who owe their success to the adaptability of their 275 to all classes of work.

If you need or use a general purpose Planer or Matcher, let us tell you more about the 275—write for Bulletin C-8, sent free on request.

J. A. FAY & EGAN CO.

465-485 W. Front St. **Cincinnati, O., U. S. A.**

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy
A sure and speedy cure for all kinds of Colic

1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**

Are Your Horses in Good Condition?

Horses for all lumber work are subjected to the hardest hauling under the most severe conditions. They should therefore be as fit as all possible care and attention can make them.

In the Lumber Camp, Around the Mill, In the Yard

and wherever lumber has to be hauled the horses are always liable to a multitude of small injuries which if not attended to promptly may develop into lameness or disfigurement, thus reducing the working capacity of the horse and impairing its value from a sale standpoint.

You should always have handy and ready for use

Good Liniment

to reduce bruises, strains, soreness; allay pain and inflammation quickly, be an antiseptic dressing to a cut or burn, or to heal a wire cut, wound or laceration.

ABSORBINE

is an antiseptic healing preparation as well as a resolvent and a discutient. It will assist nature in bringing about a dissolution of the bunch, restore the circulation, gradually restoring the part to its normal condition.

It will produce permanent and complete results without blistering or removing the hair, and will leave no blemish. You can work the horse at the same time.

All enquiries on special cases answered without delay—full information and instruction on request. Absorbine $2.00 per bottle at dealers or express prepaid.

Manufactured only by

W. F. Young P. D. F.

424 Lymans Bldg. -:- MONTREAL, CANADA

Log-Handling Machinery

All our Loaders, Kickers and Canters are made with cylinders of the style shown in the cut.

Check Valves are provided in each end, and all piping between valve and cylinder is eliminated. These cylinders are extra heavy and very durable, and are absolutely guaranteed by us.

We carry in stock at all times a complete line of Log Deck Machinery—so we can always serve you promptly.

Shall we send our Catalogue?

William Hamilton Company

Peterborough - Ontario

WE CAN

DOUBLE

THE CAPACITY OF YOUR

DRY KILN

GRAND RAPIDS VENEER WORKS

Dry Kiln Service

MEANS TO YOU

A Practical Theory
Competent Engineering
Effective Organization
Years of Experience
Guaranteed Results

Grand Rapids Veneer Works

Grand Rapids,

Michigan

Established 1874

We specialize in HEAVY HORSES

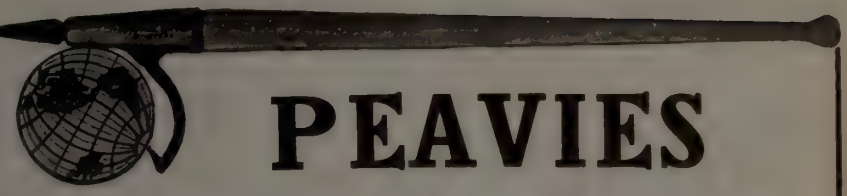
We always have a Large Stock on hand

Oldest and Largest Horse Dealers in Canada

Good horses are hard to find, so deal with an old and reputable firm. Your interests are ours.

"LET US KNOW YOUR WANTS"

J. W. JACOBS, 29 Hermine Street, **Montreal**



PEAVIES

Cant Hooks, Boom Chains, Timber Dogs

It is time to think about your logging equipment for the ensuing season. Let us figure on your requirements for Peavies, Cant Hooks, Timber Dogs, Boom Chains, and Shackles, Mill Chains, Forged Steel, Log Stamping, Hammers, etc.

Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

Write us for particulars and prices

ARGALL BROTHERS Three Rivers, Quebec

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

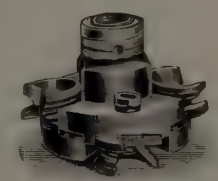
West & Peachey - Simcoe, Ont.

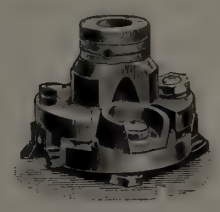
The

Shimer Cutter Heads

For Door and Sash Work

These Heads are designed especially to meet the requirements of Door and Sash makers—to save all the hand fitting. The shape of the mould desired is turned into the Circular Bits, guaranteeing a uniform pattern, and that there will be no trouble in framing door and sash parts when matched with Shimer Cutter Heads. Prices are as follows:





Door Head in solid section, complete with Bits to work 1 to 1¼ in. Doors	$18.03
Door Head with Expansion feature complete, extra	2.60
Bits for heavier doors $7.28 to $9.36 per set.	
Sash Head in solid section, complete for 1 to 1¼-in. Sash	17.91
Sash Head with Expansion feature complete, extra	2.60
Bits for heavier sash $7.00 to $7.66 per set.	
Cope Heads without Bits, each	6.45
Cope Bits moulded to pattern, $1.43 to $1.56 each.	

If you wish to reduce running expenses it will pay you to study the advantages offered by the Shimer Cutter Heads. There is nothing like them for strength—for Reliability—for Fast Cutting—for Quick Adjustment—for all-round work and lasting qualities.

These tools are turned out of Solid Steel Forgings—have the Shimer "make-ready" which saves you all the fitting and trying—keep your work up to the standard

For further particulars address

Samuel J. Shimer & Sons

GALT, ONT., CAN.

6 H.P. Heavy Duty Engine and Reversegear with Winch

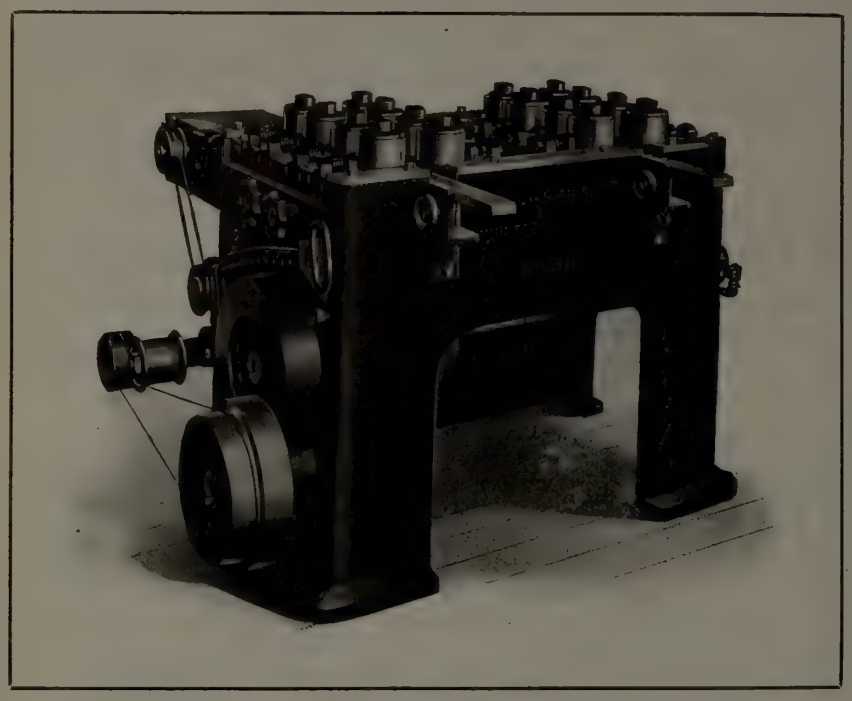
River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25 ft. punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 h.p.

Adams Launch & Engine Co.

Penetang, Ont.

Improved Box Board Matcher



16 driven feed rolls, 4⅛ in. in diameter, each one of which can be adjusted independent of all others.

4½ in. between centres of first and second pair; 5½ in. between centres of second and third pair (the cutters work between this pair) and 4¼ in. between centres of third and fourth pair.

This Matcher is compactly and rigidly constructed with every part readily accessible and the operators are close together when working.

Catalogue gladly furnished which illustrates and describes many other machines built expressly for Box Factories.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

LOGGING LOCOMOTIVES

A logging locomotive to justify its cost must start the required load and keep it going.

The right amount of the right material must be provided in the right place.

Each and every part must be sure to fit not only the locomotive for which it was made, but every other locomotive of the same size and design. Every part must be made to jigs and templets, compelling accuracy, so the machine will not be idle at a critical time for repairs or renewals. Spare parts must be instantly available, made so well as to go into place without a machine shop.

Visit our Works and see how all this is accomplished.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

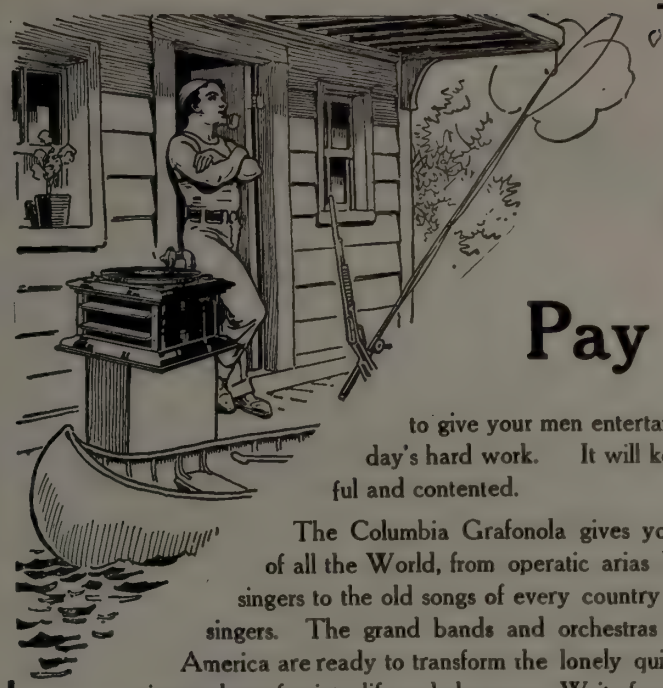
Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent



It Will Pay You

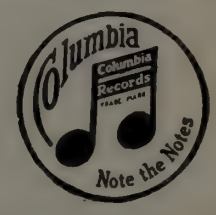
to give your men entertainment after the day's hard work. It will keep them cheerful and contented.

The Columbia Grafonola gives you all the music of all the World, from operatic arias by the foremost singers to the old songs of every country sung by native singers. The grand bands and orchestras of Europe and America are ready to transform the lonely quiet of the forest into a place of gaiety, life and pleasure. Write for descriptive catalogue of Columbia Graphophones and Grafonolas, selling at $17.50, $32.50, $65.00 and on up to $650.00. One for every taste and every purse.

Columbia Graphophone Co.

365-367 Sorauren Avenue
Toronto, Ont.

Creators of the talking machine industry. Pioneers and leaders in the talking machine art. Owners of the fundamental patents. Largest manufacturers of talking machines in the world. Manufacturers of the Dictaphone.



This engine is 13½ ins. x 18 ins. and weighs 35 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run. Oil or coal burning.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

May we send you specifications

Canadian Locomotive Company, Limited, Kingston, Ont.

Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

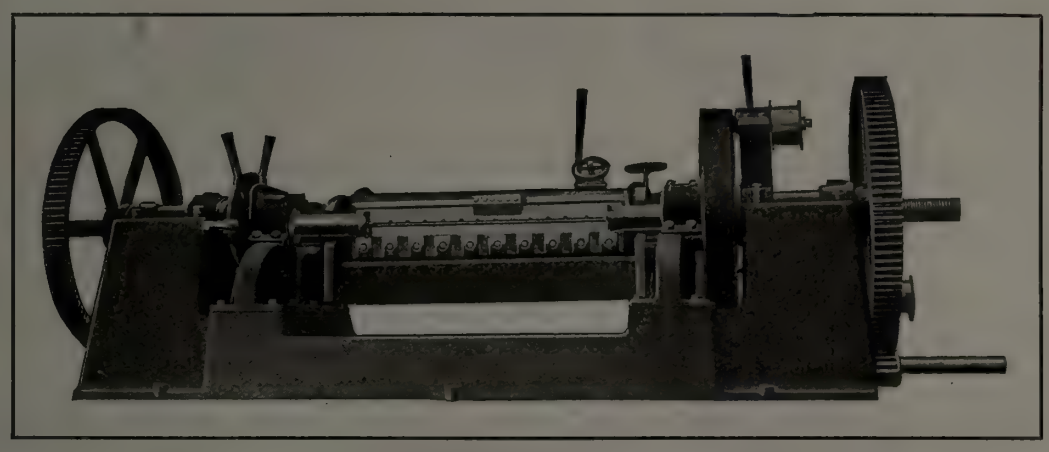
W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

"MERIT" LINE OF VENEER MACHINES

Standard of the World



The "Merit" Veneer Lathe

built on a **one-piece** frame, open and unobstructed on the top, has a third bearing for each spindle supplied with readily replaced bushing or short sleeve, automatic pitch for knife bar and unique pressure bar. Do you know what this all means and amounts to?

Perhaps not, but there are several hundred manufacturers who do, and we will give you their names if you like. We will also gladly explain it all to you if you will let us know that you are anxious to look into the matter.

Merritt Manufacturing Company

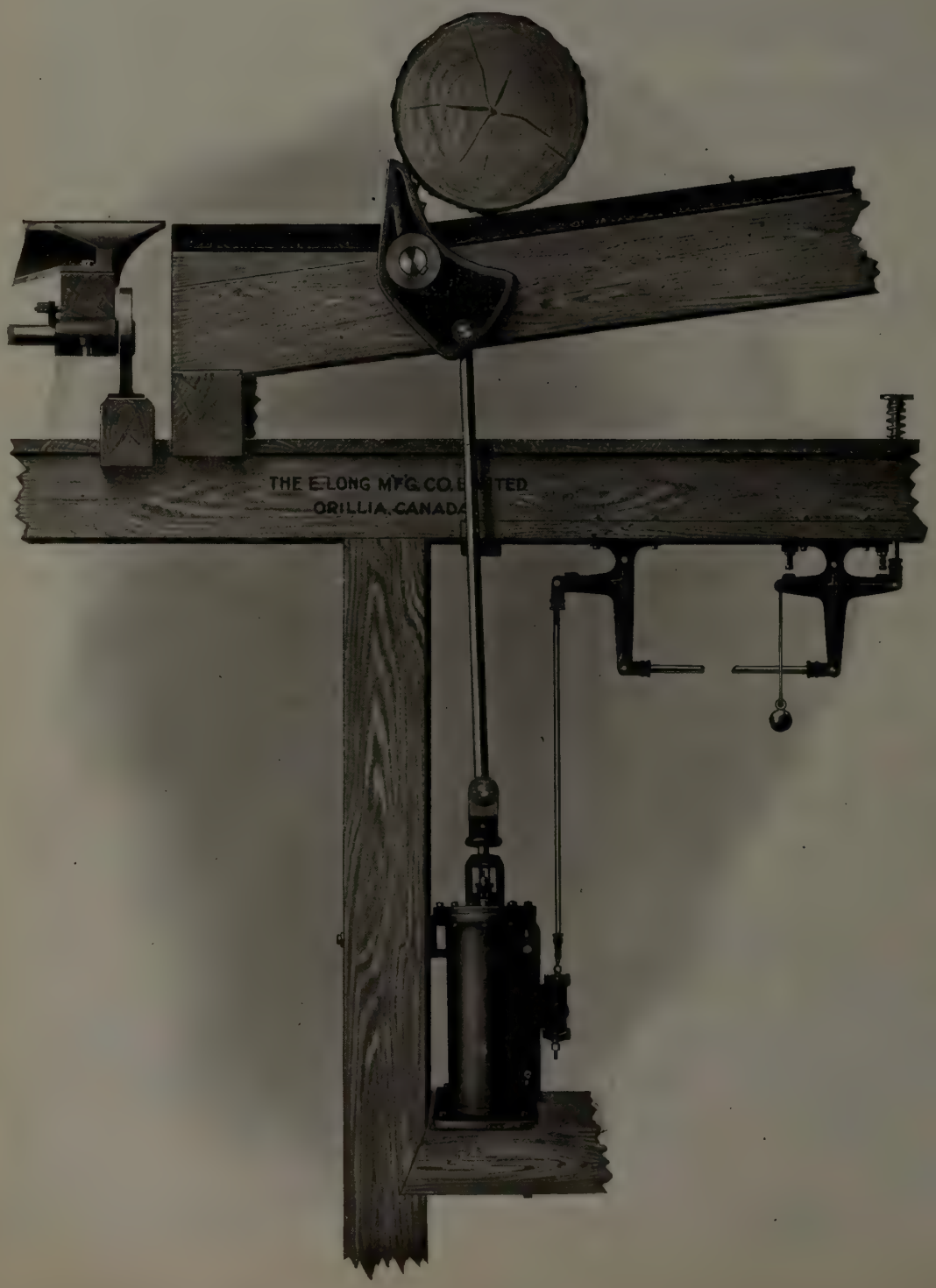
(*One hour's ride by trolley from Niagara Falls*)

Lockport, N. Y.

The Mark THE E.LONG MANUFACTURING Co. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

Put a Live Machine on the Deck

Run your mill to capacity by keeping the carriage going



Long's "Quality" Loaders

are made in sizes to suit every condition.

Have you the catalog?

The E. Long Mfg. Co., Limited

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AGENCIES:

Robt. Hamilton & Co.,
Vancouver, B. C.

Stuart Machinery Co., Ltd.,
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Gorman, Clancy & Grindley, Ltd.
Edmonton, Alta.,
Calgary, Alta.

Williams & Wilson, Ltd.,
Montreal, Que.

The Engineer's Smile

" 'Happy Days' is what the boys around the mill call me ever since we started the new engine running. If I feel good can you blame me? Instead of having to listen to the daily holler for " More Power!" every time they get a big log on the carriage, all I have to do is to keep the oil cups full and she runs along like a watch from whistle to whistle. With *everybody* satisfied—I should worry!"

Waterous Engines

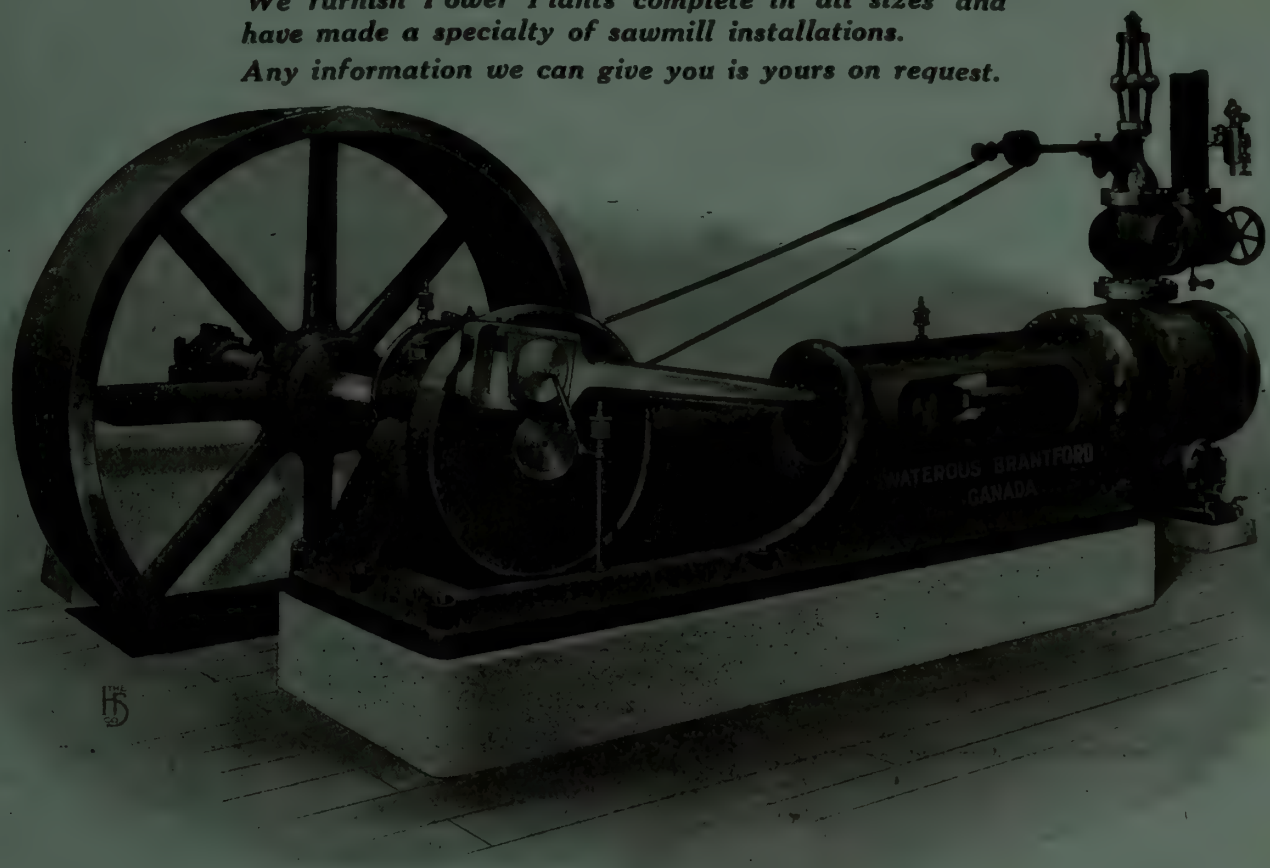
Make your choice of an Engine for the Sawmill the **WATEROUS SIDE CRANK SAW MILL ENGINE.** It is built for the work. With strength and simplicity it combines the ability to be on the job all the time.

There is nothing to get out of order. Parts are few, are sturdily built of the best of materials and are easily gotten at for oiling and overhauling.

All that is necessary to keep the Engine in tip-top shape is an occasional wipe-down and a dose of oil on the wearing surfaces.

We build both Single and Twin Engines of this type in sizes up to 600 H.P. If you want an engine that will give you absolutely reliable service, continuously, under all sorts of conditions, ask us for catalogue and prices.

We furnish Power Plants complete in all sizes and have made a specialty of sawmill installations. Any information we can give you is yours on request.



The Waterous Engine Works Co., Limited

Brantford, Canada

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$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

"Maple Leaf" Brand

Stitched Cotton Duck Belting

A trial Belt will convince you. Write for prices and samples.

Excels all others in economy, strength, efficiency and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply **"Maple Leaf"** belt, a light double leather, and a 6-ply rubber belt, showed that our **"Maple Leaf"** Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts
Are the Best on the Market.

"Maple Leaf" Belt Dressing is the best for all kinds of belts.

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The J. C. McLaren Belting Co.

Limited

General Mill Supplies **MONTREAL**

BOILERS

"INGLIS" boilers are the product of over 50 years' experience and study combined with the most modern equipment for boiler making.

"INGLIS" boilers are made in every type and all sizes.

Let us quote on your requirements.

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Engineers and Boilermakers

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Vol. 34 Toronto, September 15, 1914 No. 18

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
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are rapid cutters made by

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Electric-Welded Boom Chain

25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Reduce Your Fire Risk by Using Fairbanks-Morse Internal Starter Motors.

No complicated starting apparatus is required as they are controlled by simply closing or opening a line switch. The varying resistance necessary for starting is secured by varying the pressure on a number of carbon discs which form one of the three resistance units. There being no moving contacts there is no chance of sparking and fire risk is practically eliminated as far as your motor is concerned.

The gradually increasing pressure exerted by centrifugal force on the carbon discs gives a very smoothly starting motor.

A simple screw adjustment of the resistance units allows the starting torque to be changed from normal to 200 per cent. full-load running torque if required with a starting current of about one-half that required by the ordinary squirrel cage motor.

Send for Bulletin No. 210.

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Sole Makers of MONTREAL

"CAMEL HAIR" "CAMEL" BRAND TRADE MARK REG. BELTING

ALL SIZES UP TO 24" WIDE CARRIED IN STOCK

The Belt that will last longer, stretch less, and transmit more power than any other belt.

Stocks carried by The A. R. Williams Machinery Co., Limited,
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WE PAY EXPENSE OF TELEGRAM ON RUSH ORDERS

Nothing but the best satisfies us, what about you? Try us when next in the market for a new pump.

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THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

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B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

For Quick Shipment Send Your Orders to Us.

THE FOLLOWING DRY

Pine and Spruce Lumber

IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 "	1 x 10″	"
50 "	1 x 7″ and up	"
10 "	1¼ x 7″ and up	"
10 "	1½ x 7″ and up	"
2 "	1½ x 12″	"
5 "	3 x 6″ and up	"

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

Clear and No. 1 Spruce

10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 "	1 x 7″	"
4 "	1 x 8″	"
5 "	1¼ x 8″	"
3 "	3 x 10″ and up (mostly 11″)	"

Also "BEAVER BRAND" White Cedar Shingles—full count.
Shipment by rail or water.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada

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George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Manufacturers of

Lumber, Lath and Dimension Timber

Planing Mill

Dry Kiln

Humboldt Redwood

Humboldt Redwood is cut from the forest of North California. Its qualities suit it to almost every purpose for which lumber may be used. It will not check, is fire repelling, beautifully figured and always clear, free from pitch, easily worked, will not shrink, takes finish equal to mahogany and is in every other way a most desirable wood for all purposes.

Its Uses

Among the uses of Humboldt Redwood we mention: Sash, doors, and trim, boats, furniture, toys, pattern lumber, outside building trim, car siding, cooperage, hot bed stock, refrigerators. tanks and silos, buildings, exposed beams, clap boards, lattice, screen doors and windows, theatrical scenery, incubator and beehive stock, turned work and a variety of other uses.

Write us for prices and literature.

Canada Lumber Sales Co., Limited

145 St. James Street, Montreal

Winter Sawed Hardwoods Ready for Shipment

4/4 Log run Maple	350,000 ft.	6/4 No. 1 C.&B. Maple	60,000 ft.
5/4 No. 1 C.&B. "	40,000 ft.	8/4 No. 1 C.&B. "	200,000 ft.
4/4 Log run Beech	250,000 ft.		
6/4 "	15,000 ft.		

We have recently installed a complete planing mill and are now in a position to do dressing of any kind on short notice.

Spruce and Hemlock Timbers a Specialty

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

Going to War

on the following stocks:

LONGFORD

150,000 ft.	1″ No. 2 Hemlock
250,000 ft.	2″ No. 2 Hemlock
1,000,000 ft.	2 x 4 to 2 x 12 No. 1 Hemlock

SOUTH RIVER

300,000 ft.	1″ Spruce
350,000 ft.	2 x 4 Spruce

CACHE BAY

400,000 ft.	1″ White Pine Culls
400,000 ft.	1″ C & Btr. White Pine
1,000,000 ft.	1″ and 2″ Red Pine

The Long Lumber Company

Hamilton, Ont.

It Means Business

Business for you because you want good Lumber. Business for us because we have some mighty good lumber to sell you in

Hemlock

Pine and Hardwoods

Special bills will be shipped promptly.

Hocken Lumber Co., Limited

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DRY WHITE PINE

Low price for immediate shipment

2 x 7	12/16	6/4 x 8/10	12/16
2 x 8	12/16	3 x 7	12/16
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6/4 x 8	12/16	3 x 9	12/16

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Lumber - Lath - Shingles

Cedar Poles and Posts

Railway Ties - - Piles

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Georgian Bay Lumber Co.

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Manufacturers of High Grade

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New York City: Guy E. Robinson, 1123 Broadway

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Lumber

Cedar Shingles
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Can Dress and Resaw as required at Spruce Mills.

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Rail, Schooner and Steamship Deliveries

BROMLEY

Look where you will,
"Bromley's" is the best stock in sight
Red and White
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Wholesale
Lumber
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Wm. H. Bromley
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PINE, SPRUCE, HEMLOCK, HARDWOODS, LATH

Deal with me and you will be satisfied every time.

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

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Everything in Lumber

Wholesale and Retail

Write or wire us for your requirements

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We have in stock, ready to ship

Interior Finish

Gumwood (Red)	B.C. Fir	White Pine
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Doors, Sash, Frames

General Millwork

Send us your enquiries
In car lots or local shipments

Webb Lumber Co., Limited

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FESSERTON TIMBER CO.

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Hemlock and Pine Timbers a Specialty

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250,000,000 feet constantly in stock insures filling any reasonable order promptly.

Our Canadian trade is constantly increasing and we are always striving to merit a still larger increase.

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a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.
The rates are most reasonable, write us.

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13 Foot and 16 Foot

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Saw Mill and Novelty Works. All kinds of Hard and Softwood Lumber. Dimension Stock in Beech, Maple and Birch. Mattress and Cot Frames, Etc.

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Yellow Pine Timber a Specialty. Interior Trim Mill Work.

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Special Price, $1.00

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The Celebrated Diamond Brand

End Matched, Bored, Polished and Bundled

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Good Grades — Right Prices — Prompt Shipments

Canadian Hardwood. National Grading Rules

Birch
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Maple
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All Thicknesses

Also full line in

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All grades and sizes.

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WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood, Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

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Manufacturers:

Lumber, Hardwood Flooring, Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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(La Cie Industrielle de Rimouski, Ltee.)

Dressing of wood in transit on the Intercolonial Railway.

SPECIALTIES

Sawed Hemlock
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Rough and Dressed Lumber and Lath
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Southern Hardwoods
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Pro-gressive Lumbering
demands accurate knowledge of quantity, quality and accessibility of timber supply. This knowledge, when obtained by our
TIMBER ESTIMATES
is reliable. It appeals to
Timber Investors, Bonding Houses, Mill Operators.
WE INVITE CORRESPONDENCE.
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Boston, 622 Tremont Bldg.
Pittsburgh, 900 Arrott Bldg.

The Penetanguishene Planing Mill Sash and Door Factory
Planing of all kinds done by carload. Railroad Switch in connection with mill. All classes of building material, lime and cement for sale.
ALPHONSE TESSIER, Builder & Contractor
PENETANGUISHENE, ONTARIO

"Well Bought is Half Sold"

We Offer the Following Special Lines—
For Quick Sale

2 Cars	4 x 4 to 6 x 6	Sound Cedar Squares
100,000 Ft.	5/4	1st and 2nd Basswood
2,500 "	8/4	" " "
2,500 "	16/4	" " "
12,000 "	8/4	1st and 2nd Soft Elm
17,000 "	4/4	No. 1 C. & B. Soft Elm
22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8 to 16"—10 to 16 ft.	1st and 2nd White Ash
13,000 "	2 x 6 and up—10 to 16 ft.	No. 1 C. & B. White Ash

Hardwoods Thoroughly Dry
Your Inquiries Will Have Prompt Attention

Graves, Bigwood & Co.
MANUFACTURERS OF
Pine and Hemlock Lumber
1026-32 Traders Bank Bldg, **Toronto, Ont.**
Mills: Byng Inlet, Ont.

We are Buyers of
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Veneers (3 or more ply) Handles (all descriptions)
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For Sale by Owners
B. C. Timber Lands
Located on three New Railroads { G. T. P. / C. N. R. / P. G. E.
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Quick Shipments
Gulf Cypress
N. Carolina Pine
Long Leaf
Timber
From our wharves in Portland, Maine
Wilson Lumber Co.
Portland, Me.

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OTTAWA — WHOLESALE — CANADA

OAK — FIR — WHITE PINE

Specialty --- Dimension Timber

HEMLOCK — YELLOW PINE — NORWAY PINE

Lumber
Lath
Shingles

EASTERN AGENTS
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MILLS AT - - BARNET, B.C.

TIES
POLES
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THE McGIBBON LUMBER CO.
OF PENETANGUISHENE

Manufacturers of and Dealers in

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HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

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Why demand the highest possible efficiency in

SAWMILL MACHINERY

And remain satisfied on your drive with the

ANTIQUATED HORSE-HEADWORKS

A 20th Century Mill Demands a 20th Century Drive

The Shaw Motor Headworks is the only 20th Century method of towing logs. Try one and you will acknowledge this.

For full particulars write

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Fort Frances, Ontario.

F. N. WALDIE, President. — R. S. WALDIE, Vice President. — W. E. HARPER, Secretary.

The Victoria Harbor Lumber Co., Ltd.

Manufacturers of

Lumber, Lath and Shingles

Mills at Victoria Harbor, Ont.

HEAD OFFICE,
12-14 Wellington Street East, TORONTO, ONT.

TORONTO

We offer the following

NORWAY

125 M. ft. 2 x 6 in. Mill Run Clear Cut.
150 M. ft. 2 x 8 in. Mill Run Clear Cut.
100 M. ft. 2 x 10 in. Mill Run Clear Cut.
1 x 4, 5, 6 and 8 in. piled separately.
1 in., 1½ in. and 2 in. Clear and Clear Face.

SPRUCE

2 x 6 in., 12, 14 and 16 ft., good dry stock
8 x 8 in., 12, 14 and 16 ft., good dry stock

Leak & Company, Limited

18 Aberdeen Chambers, TORONTO

JOHN DONOGH & CO.

Wholesale Dealers

HEMLOCK
SRUCE

Dry stock in all sizes. *Quick shipments.*

1205 TRADERS BANK BUILDING, TORONTO

FRANK H. HARRIS LUMBER CO., LIMITED

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Yellow Pine and B.C. Shingles always in transit

Selling Agents for

MEMPHIS VENEER & LUMBER CO.
Manufacturers
Honduras Mahogany and Sawn Veneers
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Manufacturers
Oak, Ash, Poplar and Cypress
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Mixed Cars

Promptly Shipped

SEND US A LIST OF YOUR REQUIREMENTS AND WE WILL QUOTE AN ATTRACTIVE PRICE.

Oliver Lumber Co.

of Toronto Limited
Confederation Life Building

PILING

Our Specialty

We always have on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet in length.

We offer for immediate shipment
Dry Spruce—2 x 4, 2 x 6 and 2 x 8.

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Lumber, Lath and Shingles
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Spruce, White Pine Strips and Mill Culls, Norway and Hemlock

Quotations Promptly Made

The Elgie & Jarvis Lumber Co., Ltd.
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We Have for Immediate Shipment:—

300,000 1" No. 1 C. & B. Birch
60,000 2" No. 1 C. & B. Maple
60,000 2" No. 1 C. & B. Elm
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20,000 1" No. 1 C. & B. Maple
150,000 1" No. 1 C. & B. Elm

This stock was cut early, is dry, and was taken from an exceptionally good run of logs. We are quoting attractive prices on this lumber for prompt shipment.

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Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

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Far sighted owners of timber lands should take advantage of the times incident to the European wars, and prepare themselves for the day when the demand for timber is suddenly thrust upon them. This is certain to come at no distant day. Therefore cultivate a closer acquaintance with your holdings, and the best method of marketing them. Let us prepare the way for you. Remember, we not only report on the property, but assist in marketing the bond issue when necessary. Send for our booklet.

L. E. Campbell Lumber Company

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Clear mouldings and knock down window and door frames, freight and duty paid to Canadian points, at less than your cost of manufacture. Try us on a car.

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Long Leaf Timbers, Short Leaf Finish and Railroad Material

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WIRE and WIRE PRODUCTS for
Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, **Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.**

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooperage.

The Laidlaw Bale-Tie Co., Limited

Winnipeg, Harry F. Moulden & Son — HAMILTON, ONTARIO — Vancouver, George W. Laidlaw

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SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE SOLICITED

Mills at:

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On I. C. Ry. 75 Miles East of Quebec City

Hemlock Norway
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Prices Right

James G. Cane & Co.

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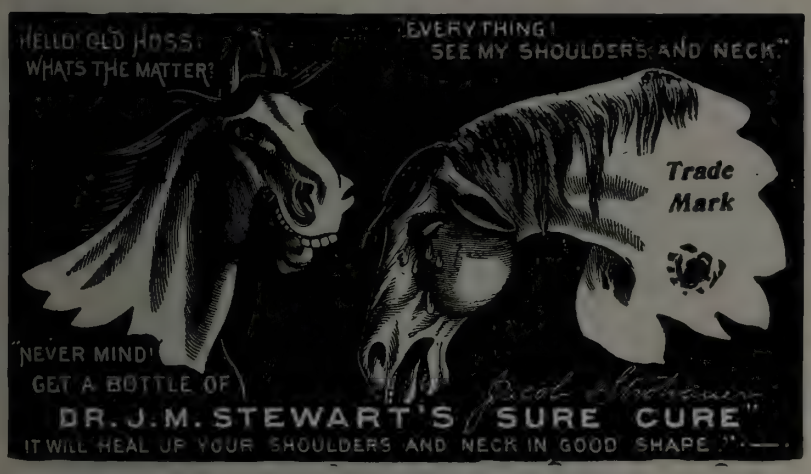
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"NEVER MIND! GET A BOTTLE OF
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IT WILL HEAL UP YOUR SHOULDERS AND NECK IN GOOD SHAPE."

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Stewart's Sure Cure (antiseptic gall cure) the original in liquid form	16 oz. bottles	$9.00 doz.
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LUMBER
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Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

Spruce
White Pine
Banksian Pine
Birch

Get our stock list and prices.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, **Portland, Maine**

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

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BARCLAY SHINGLE MILLS

LIMITED

P. O. Drawer 520, VANCOUVER.

Mills at HANEY, B. C.

Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is posstively right, and prices will please

Timberland Lumber Co., Limited

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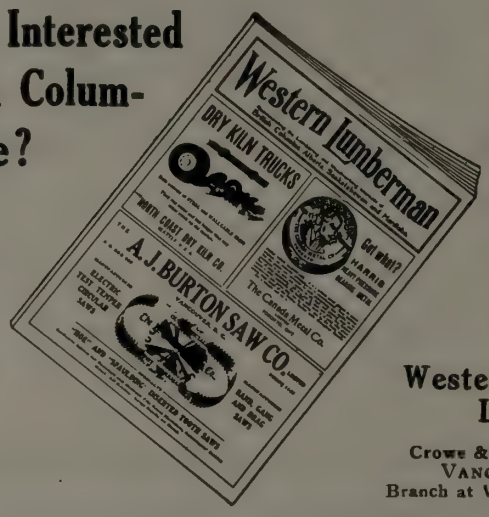
Mills at Craigs on the B C.E R.
Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

Are You Interested in British Columbia Trade?



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The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.

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Crowe & Wilson Chambers
VANCOUVER. B. C.
Branch at Winnipeg

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MANUFACTURERS OF

British Columbia Red Cedar Exclusively

4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding.
8, 10 and 12 inch CLEAR CEDAR FINISH.
EXTRA XXX RED CEDAR SHINGLES.

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**Good Steel Carefully Manufactured
Properly Tempered**

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DON'T BUY REAL ESTATE,

MORRIS CHAIN

BLOCKS

ARE A BETTER INVESTMENT.

THE HERBERT MORRIS CRANE & HOIST COMPANY, LIMITED,

EMPRESS WORKS, PETER STREET, TORONTO

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.

TORONTO, CANADA

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 8-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

POWER PLANT

2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The

Parry Sound Lumber Co.

Limited

26 Ernest Avenue, TORONTO, CANADA

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, **Cincinnati, Ohio.** *Write for prices.*

Service First

He profits most who serves best.

Satisfaction Guaranteed

Stearns Quality Stock

45 M 1 x 6 in. and wider 1s and 2s End Dried White Basswood.
36 M 1 x 6 in. and wider 1s and 2s Basswood.
18 M 5/4-6 in. and wider 1s and 2s Basswood, 50 per cent. 16 ft.
19 M 6/4-6 in. and wider 1s and 2s Basswood.
78 M 4/4-7 in. and wider No. 1 Common Basswood.
27 M 5/4-3 in. to 6 in. No. 1 Common Basswood.
32 M 4/4-7 in. and wider No. 2 Common Basswood.
62 M 5/8 No. 2 Common and Better Beech.
48 M 4/4 6 in. and wider 1s and 2s Beech.
74 M 4/4 6 in. and wider No. 1 Common Beech.
86 M 6/4 3 in. and wider No. 1 Common Beech.
68 M 8/4 No. 2 Common and Better Beech.
72 M 4/4 6 in. and wider No. 1 Common Birch (Red all in).
45 M 4/4 1s and 2s Soft Gray Elm.
90 M 4/4 No. 1 Common Soft Gray Elm.
70 M 4/4 No. 2 Common Soft Gray Elm.
79 M 4/4 No. 2 Common and Better Soft Maple.
21 M 8/4 No. 2 Common and Better Soft Maple.

The Stearns Salt & Lumber Co.

Ludington, Michigan

W.M.RITTER LUMBER COMPANY

Below is List of Dry Lumber We Can Ship Promptly

POPLAR
We can furnish all thicknesses and grades from 5/8 to 4 in.

RED OAK
4/4 firsts and seconds, 2 cars.
5/4 firsts and seconds, 1 car.
6/4 firsts and seconds, 1 car.

WHITE OAK
3/8 firsts and seconds, 1 car.
1/2 firsts and seconds, 1 car.
3/4 firsts and seconds, 2 cars.
4/4 firsts and seconds, 1 car.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 3 cars.
8/4 firsts and seconds, 2 cars.
No. 1 common we can furnish in all thicknesses from 3/8 to 2 in.

CHESTNUT
Can furnish all grades and thicknesses from 4/4 to 8/4 in Chestnut.

BASSWOOD
Can also furnish any grades in 4/4 that you require.

The above is a list of dry stock which we can ship promptly. All our own manufacture, band sawed and thoroughly dry. Do not place your order before writing for prices.

CANADIAN REPRESENTATIVE:

John Hall, Box 32, Toronto, Canada

Phone College 6997

W.M.RITTER LUMBER COMPANY — COLUMBUS, OHIO

CAFLISCH BROTHERS

HARDWOOD LUMBER

Wholesale Distributing Yards and Sales Offices

JAMESTOWN, N.Y.

Mills at—

Union City, Pa. **Monticello, Ky.**
Hambleton, W. Va. **Ross Point, Ky.**

Full assortment of grades and thicknesses in Quartered and Plain Oak, Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS. ***IMMEDIATE SHIPMENTS.***

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.

Canadian Representative:
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Hoffman Brothers Company

Fort Wayne, Indiana

Manufacturers of Hardwoods—Any Thickness From

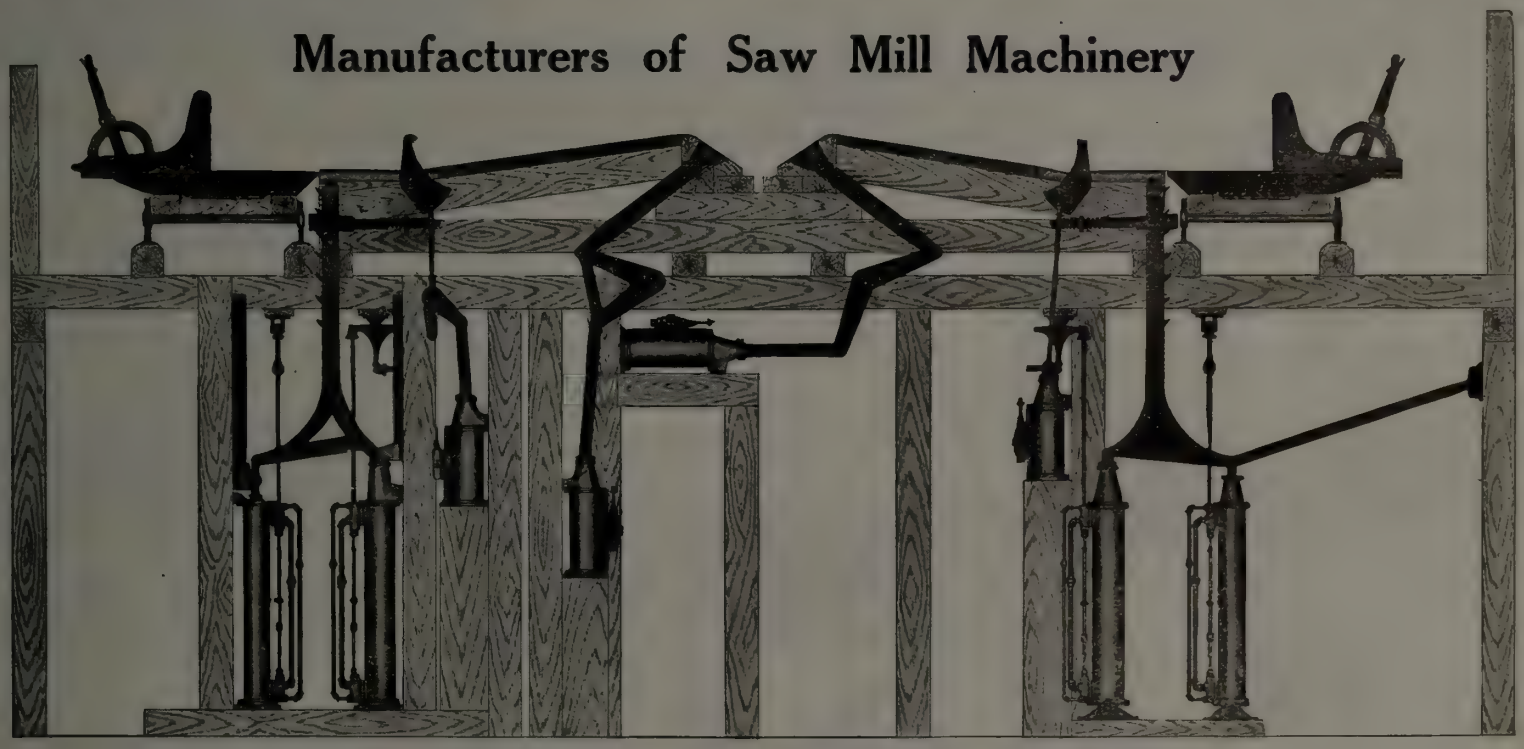
1/30″ SLICE CUT VENEER
1/20″ SAWED VENEER
to
2″ BAND SAWED LUMBER

Specialty:

QUARTERED WHITE OAK

WM. E. HILL CO. - KALAMAZOO, MICH., U.S.A.

Manufacturers of Saw Mill Machinery



The Best Steam Log Deck Machinery on the Market

At left of cut is shown our Stationary Steam Nigger, Double Connected Steam Log Stop and Loader and Kelley Steam Kicker. At right of cut our Oscillating Steam Nigger, Direct Connected Steam Log Stop and Loader, and Kelly Steam Kicker arranged horizontally.

Established 1881 **Incorporated 1912**

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The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

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Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

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Manufacturers of Lumber Tools

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Mill, Factory and Camp Business

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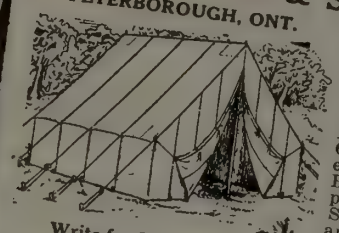

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ALGONQUIN STEEL RANGE.

A good Steel Range for Camp Use

Can be fitted to burn wood, coal or coke. Special price to lumbermen.

Write us. **NATIONAL MFG. CO., LTD, Ottawa.**

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Guaranteed to contain 34 per cent. Pure Cane Molasses

Increase the efficiency of your horses, keep them free from Colic and indigestion

Leading lumber camps now using it

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Purina Horse and Dairy Feeds

With Molasses and Alfalfa

In Checkerboard Bags.

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Note our NET PRICES per foot on NEW RUBBER BELTING

4 ply.	5 ply.
8" at 31c	8" at 36c
10" " 40c	10" " 47c
12" " 50c	12" " 60c
14" " 55c	14" " 70c

Send for our Net Price List on Belting of every description,

N. SMITH, 138 York St. **TORONTO, Ont.**

Saddle Tank Locomotives
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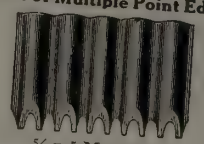
Packed in bulk or packages.



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Any depth and any number of corrugations

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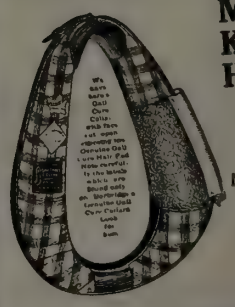

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(PATENTED)

These collars will not hurt your horses' shoulders.

No. 62 Lumber, Hogskin face, $37.00doz.

Saddlery & Moccasins

S. & H. Borbridge
Ottawa, Ont.

Anchor Brand Oats

In Bulk or Sacks

The Best Oats on the market. Let us fill your next order and prove what we say.

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"OMAZON"

Nourishing and Medicinal Powder

Cures and invigorates the horse by its general action on the Stomach and Bowels.

Sold in packages and in pails.

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W. H. Dwyer & Co., Ltd.
OTTAWA, ONT.
Offices also at Fort William and Montreal

Largest Wholesale Dealers in Hay and Oats in Canada

Write or wire us at any of the above offices. We do the rest.

"HE WHO SERVES BEST PROFITS MOST."

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"The Alligator Brand"
HARNESS, COLLARS, AND SADDLES

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Penetang Pine Pleases Particular People

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"DUXBAK" Waterproof Clothing

For outdoor wear this "Duxbak" cravenetted coat is just what many lumbermen are looking for. It is light in weight and absolutely guaranteed to be waterproof. The fabric permits of perfect ventilation.

Other "Duxbak" garments are norfolk jackets, long trousers, knee pants, riding breeches, cartridge vests and a variety of caps and leggings, for both men and women.

Write us for booklet.

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59 St. Peter St. - Montreal

FEED NATIONAL OATS—*There is a Reason*

National Oats

are good clean heavy western oats—carefully bagged and well sewn to meet the requirements of the

Lumber Camps

If you have never tried them do it now—ask us for quotations, stating your requirements.

National Elevator Co., Ltd.

Winnipeg, Man.

THE OAT SPECIALISTS

RUSSEL LOGGING CARS

Mr. Lumberman

It's the Russel Car you will be interested in. The Russel Car is unsurpassed in quality, service and capacity.

Built for any capacity and to accommodate any length of log desired.

—Canadian Representative—

Vancouver Machinery Depot Limited

Vancouver, B. C.

Russel Wheel & Foundry Company, Detroit, Mich.

"For the last fifteen years we have bought absolutely nothing but the highest grade of Arkansas Soft Pine that can be had. As a rule we pay from $3 to $5 per thousand more for this stock than for stock coming from any point east of the Mississippi River. It is to our advantage to do this."

(Excerpt from a customer's letter.)

Arkansas Soft Pine will be an advantage to YOU.

Freeman-Smith Lumber Company,	Millville, Ark.	Arkansas Lumber Company,	Warren, Ark.
Gates Lumber Company,	Wilmar, Ark.	Cotton Belt Lumber Company,	Bearden, Ark.
Southern Lumber Company,	Warren, Ark.	Crossett Lumber Company,	Crossett, Ark.
Stout Lumber Company,	Thornton, Ark.	Eagle Lumber Company,	Eagle Mills, Ark.
Valley Lumber Company,	Reader, Ark.	Edgar Lumber Company,	Wesson, Ark.
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Master Equipment

Belting, Hose and Packing that Earn Their Way

In the sawmill Belting is put to unusual tests. As hard knotty logs hit the saw a terrific strain is thrown on the belt. Slippage means lost power. Lost power means lost efficiency. And when a belt breaks it means more than the cost of a new belt. It means loss of output and salaries that have to be paid regardless.

Realizing this, men are buying more and more Goodyear Belts for the downright service they give. No Goodyear Belt is ever made to meet a price or a standard. Each belt is made to **set** an unusual service standard.

There are Goodyear Belts for every exact requirement in the sawmill. These range from Belts for the main drive to Belts for small pulley machines.

"Extra Power"

This is the Master Belt for the main drive—edger and planer. It is wonderfully strong. In fact this Belt shows the highest friction pull of any belt we have ever tested—fully 10 per cent. better than the next best high quality belt.

"Extra Power" is made of the heaviest and strongest duck of any Belt we make—all laboratory inspected, tested and passed. The stretch is taken out in the making. The strong serviceable plies are unified by the highest grade rubber friction. There is maximum precaution against ply separation. All Goodyear Belts have the famous Sealed **Seam** and are cured under a heavy, carefully regulated hydraulic pressure, determined by the service. "Extra Power" is made in various widths—made "endless" when desired.

"Imperial"

This is a Goodyear Belt designed especially for high grade speed and small pulley conditions. It is a splendid Belt for trimmer work. Seamless and Goodyear made for its particular purpose.

GOODYEAR
TORONTO
Belting, Hose, Packing

Hose and Packing

Goodyear Steam Hose and Packing are made for exact specific services. There is a particular Goodyear product for every particular need. Exact Goodyear methods insure the best for your money. Goodyear Service means economy.

Ask These Men Buy equipment on a service basis. Back of every Goodyear product is fifteen years successful experience. At the Goodyear Bowmanville, Ontario, Factory are experts who study actual working conditions long before any Goodyear equipment is made. Consult these men when you are about to buy Belting, Hose or Packing. Their advice, freely given, will save you money and insure the service you are seeking. Costs nothing to ask questions.

The Goodyear Tire and Rubber Co. of Canada, Limited

Head Office—TORONTO, ONT. Factory—BOWMANVILLE, ONT.

Branches at Vancouver, Edmonton, Calgary, Regina, Winnipeg, Hamilton, Ottawa, Montreal, St. John, N.B.

ONTARIO

Canada's Banner Province

Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

Pine production,	905,442,000 ft. B.M.
Pulpwood,	246,282 cords.
Railway Ties,	5,704,459.

Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

Ontario's vast resources offer unsurpassed opportunities to the lumberman.

For maps and full information regarding Ontario, apply to

HON. W. H. HEARST,

Minister of Lands, Forests and Mines.

Massee & Felton Lumber Co.

HARDWOOD LUMBER

Mills: **MACON, GEORGIA**

SHIPPING DRY STOCK LIST

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4/4 1st and 2nd	160,000
4/4 No. 1 Common	285,000
4/4 No. 1 Common Figured	108,000

PLAIN RED GUM

3/8 1st and 2nd	21,000
4/4 1st and 2nd	320,000
5/4 1st and 2nd	11,000
5/8 No. 1 Common Red	58,000
4/4 No. 1 Common Red	185,000
6/4 No. 1 Common Red	6,000

SAP GUM

5/8 1st and 2nd	16,000
1/2 1st and 2nd	10,000
5/4 1st and 2nd	12,000
6/4 1st and 2nd	45,000
4/4 Panel 18 in. and up	32,000
5/8 No. 1 Common Sap	35,000
3/4 No. 1 Common Sap	36,000
4/4 No. 1 Common Sap	175,000
5/4 No. 1 Common Sap	27,000
6/4 No. 1 Common Sap	40,000
4/4 No. 2 Common	600,000
4/4 No. 3 Common	400,000

BEECH

4/4 Log Run	70,000

HICKORY

8/4 No. 1 Common and Better	40,000

ELM

4/4 Log Run	34,000
6/4 Log Run	70,000

ASH

4/4 No. 1 Common	12,500
6/4 No. 2 Common	6,000

CYPRESS

4/4 Log Run	6,000
4/4 No. 1 Common	5,000
4/4 No. 1 Shop	6,000

PERSIMMON

5/4 Log Run	2,000
6/4 Log Run	8,000

SYCAMORE

4/4 Log Run	106,000

OAK

4/4 No. 1 Common Quartered White Oak	12,000
4/4 No. 1 Common Quartered Red Oak	1,600
3/4 No. 1 Common Plain White Oak	15,000
4/4 No. 1 Common Red Oak	110,000
4/4 No. 2 Common Red and White Oak	70,000
4/4 1st and 2nd Red Oak	25,000
4/4 No. 3 Common Red and White Oak	85,000
4/4 Sound and Wormy Oak	20,000
3/4 No. 2 Common Red and White Oak	15,000

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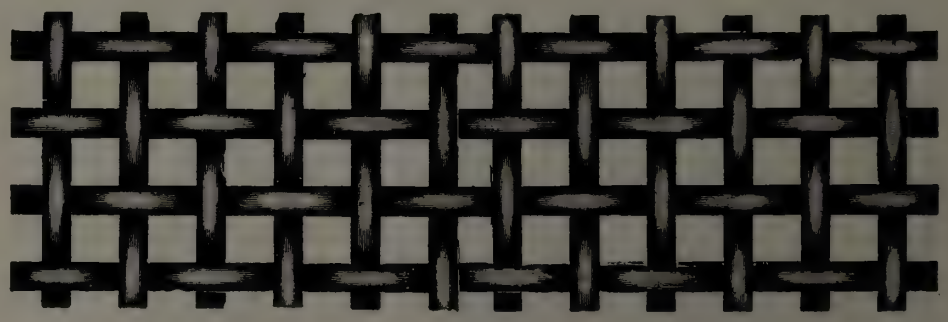

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Design B.L. No. 1

Length	Diameter				
	5-in.	6-in.	8-in.	10-in.	12-in.
4 ft.	$1.60	$1.70	$2.25	$3.00	$5.00
5 ft.	1.85	2.00	2.40	3.25	5.50
6 ft.	2.10	2.20	2.50	3.40	5.75
8 ft.	....	....	3.10	4.20	6.75
9 ft.	....	....	3.50	4.75	7.50
10 ft.	....	....	3.75	5.00	8.00

Design B.L. No. 2

Length	Diameter				
	5-in.	6-in.	8-in.	10-in.	12-in.
4 ft.	$1.60	$1.70	$2.50	$3.35	$5.75
5 ft.	1.85	2.00	2.65	3.60	6.25
6 ft.	2.10	2.20	2.75	3.75	6.50
8 ft	....	....	3.35	4.55	7.50
9 ft.	....	....	3.75	5.10	8.25
10 ft	....	....	4.00	5.35	8.75

Design B.L. No. 3

Length	Diameter				
	5-in.	6-in.	8-in.	10-in.	12-in.
4 ft.	$2.10	$2.20	$3.00	$4.70	$6.75
5 ft.	2.40	2.55	3.20	5.50	7.30
6 ft.	2.70	2.80	3.35	5.80	7.60
8 ft.	....	....	4.10	7.70	8.70
9 ft.	....	....	4.55	8.25	9.50
10 ft.	....	....	4.90	8.60	10.05

Design B.L. No. 4

Length	Diameter				
	5-in.	6-in.	8-in.	10-in.	12-in.
4 ft.	$2.60	$2.80	$3.70	$4.75	$8.00
5 ft.	2.85	3.10	3.85	5.00	8.50
6 ft.	3.10	3.30	3.95	5.15	8.75
8 ft.	....	....	4.55	5.95	9.75
9 ft.	....	....	4.95	6.50	10.50
10 ft.	....	....	5.20	6.75	11.00

Design B.L. No. 5

Length	Diameter				
	5-in.	6-in.	8-in.	10-in.	12-in.
4 ft.	$3.10	$3.35	$4.20	$6.10	$9.00
5 ft.	3.40	3.70	4.40	6.90	9.55
6 ft.	3.70	3.95	4.55	7.20	9.85
8 ft.	....	....	5.30	9.10	10.95
9 ft.	....	....	5.75	9.65	11.75
10 ft.	....	....	6.10	10.00	12.30

B.L. No. 261 Octagon 1¼ x 1¼ 2 ft. 0 in. Price 8c.

B.L. No. 257 Round 1¼ x 1¼ 2 ft. 0 in. Price 7c

B.L. No. 262 Square 1¼ x 1¼ 2 ft. 0 in. Price 8c

B.L. No. 260 Octagon 2½ x 2½ 1 ft. 10 in. Price 12c

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B.L. No. 265 Square 2½ x 2½ 1 ft. 10 in. Price 12c.

B.L. No. 264 Square 3¼ x 3¼ 1 ft. 10 in. Price 22c.

B.L. No. 263 Octagon 3¼ x 3¼ 1 ft. 10 in. Price 22c

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Excellent value in Valencias Prunes and Evaporated Peaches—this latter is the only line that will truly take the place of Evaporated Apples of which the market is bare, and so much cheaper—just fancy a fine quality yellow meaty peach at 7½—get in on these.

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TORONTO MONTREAL WINNIPEG CALGARY VANCOUVER

Canada Lumberman & Wood Worker

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Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Should Banks Restrict Production?

Although the situation in connection with the lumber trade to-day is very much the same as it was two weeks ago, the atmosphere has to some extent cleared, and those engaged both in the manufacturing and selling of lumber are commencing to look further into the future than they were at that time. The result is that in the minds of most lumbermen there is to-day a very clear conviction that next year will witness a good demand for lumber, possibly even an abnormal demand, and that at that time there is almost certain to be a shortage of stocks. These two factors together are such as to indicate that those who are in the possession of stocks will be able to obtain a profitable price without any suggestion of unnatural advance. The situation seems to be one which will inevitably bring about high prices, short stocks and heavy demand. In the face of this it is most interesting and to some extent puzzling to note the course which is being adopted by some of the Canadian banks in regard to the discouragement of local operations during the approaching winter. So far as one can gather, the banks have decided to urge their friends in the lumber manufacturing business to reduce their operations greatly. Whether this is entirely a wise move, is open to question, but the fact remains that prominent and successful operators, with extensive bank accounts and high-class credit, have been advised that the banks do not want them to cut any green timber this winter, and that in case they should contemplate doing so they should make their necessary banking arrangements before making any move in the direction of putting in their camps.

Such a step as this is unquestionably a wise one in connection with any firm whose business is done on an extensive credit basis, but it does seem as though the factors now combining toward the goal of higher prices next spring should warrant the banks in limiting their restrictions to some extent to those companies which are likely to over-step the boundaries of caution. The matter, of course, must depend upon the available money supply in the hands of the banks, but current opinion, based upon recent developments, indicates that the banks are in a position to encouarge logging operations to a greater extent than is indicated by the letter referred to above. However, the step has already been taken and it looks as though it is likely to be carried out in the way in which it has been commenced.

That this situation is extremely serious from the point of view of many sound lumber manufacturing companies is indicated by many interviews which the Canada Lumberman has recently had, and also by frequent letters which we have received. Among these letters is one from a long established and successful company in Eastern Canada, in the course of which they say:—

"As you state, it is a little early yet to say what effect the war will have upon the lumber business. One effect however, is apparent in the meantime, and that is the attitude of the banks. The shipments of lumber to Great Britain necessitate the making of sterling bills, and these the banks are refusing to take in any large amounts. As lumber cargoes run in value from £6,000 to £12,000, you can readily see the position that we are placed in at present.

"Again we are given to understand that the banks will refuse to make any advance for new work and that our new lumber operations will come under that category. If this is the case it will mean that we will be unable to go into the woods as very few lumbermen that we know of are in a position to go into the woods for logs, and not borrow from the banks. Now is the time when parties should be going into the bush so as to get economical work done and while personally we have not approached the bank as yet, it has been intimated to us that it is useless to do so, and we would rather wait in the hope that things may be more favorable in the future, than approach an apparent refusal.

"Personally, the writer is of the opinion that the lumber market, so far as Canada is concerned, will be materially improved, and that the demand will be abnormal, the Baltic and Riga woods being shut out. At the present moment 25s. to 30s. per St. Petersburg standard more can be secured for lumber on the other side than was available in the spring. Against this however we have to pay a higher rate of freight, of about 10s., and the war tax.

"As I have stated, my impression is that this is Canada's opportunity in all manufacturing lines and we should take advantage to the full, as a country that is called upon as we are to help defray the war expenses should be a producer to its full capacity. Its people would then be in a better position to pay the extra assessment that will be necessary.

"If the manufacturers in Canada are wise they will use every effort to get their goods introduced where German and Austrian goods formerly held the market and will endeavor to obtain permanent holds upon these markets."

The Square Dealer's Innings

These are the days when many an old time theory is put to the test of practice. One of the favorite theories of many writers in trade journals, and also of many practical lumber salesmen, is that the best way to hold trade is to deal squarely with customers. There are, practically speaking, two classes of salesmen; the square dealer and the man of sharp practices. Both of them make a good deal of money when times are good and business is plentiful, but the sharp practice fellow comes to grief every now and then, in spite of his well known ability to persuade the new prospect to become a customer. One of the favorite methods of making money, as practised by salesmen who are not as scrupulously fair about their business as they should be, is to deliver stock which is off color in some way, trusting that no complaint will be made, or that in case of complaint they will be able to persuade the customer that he is wrong, or to make an adjustment which still leaves them a good profit. This plan, in a wide variety of forms is continually being worked out, and the wonder is that it is successful in such a number of cases, in spite of the increasing tendency towards stricter business methods on the part of the trade as a whole. In times of business activity, the man who treats his customer in this manner does not think so much of the business he may get from this particular customer in the future, as of the good profit

he will make on the single order if it goes through without any complaint. He knows from experience that he will be able to find other customers and that the average volume of trade can be maintained at a level large enough to make it worth his while to continue until some crisis developes. He trusts to his own initiative and skill to come out of such a crisis safely, or to avoid the consequences if they become serious.

To-day a crisis of this nature is in existence, and it is of much greater magnitude than any similar crisis which has ever occurred in the past. The salesman who has indulged in sharp practices in the past finds himself to-day "up against it" in a manner which he never expected. He cannot sell stock; he cannot even get stock to sell. On the other hand, the man who is strictly square in his dealings is getting his reward to-day. Recently the Canada Lumberman was talking with a salesman at a time when trade had declined to almost nothing, according to market reports which had been received. The war had entirely closed off the demand from most of the usual sources of trade. Yet this salesman, as mentioned in a previous issue, intended to go out upon the road in spite of the fact that many others were not doing so, as they felt that they could not make expenses. He, however, believed that he could make expenses and a little profit besides. During a week when everybody was saying that he had never in his life seen so little trade, this salesman succeeded in securing a few good orders which made his firm's business for that week quite equal to the average. Early in the next week, moreover, he secured additional orders by mail, from one of the previous week's customers. He is continuing this policy right along, and believes that he is reaping now the harvest for which he has been sowing for many years, by acting fairly with all his customers. At the present time, although trade has been greatly upset, there is no doubt that a large amount of lumber of many kinds is going into consumption; although, taken in the aggregate, it is a small amount compared with the volume of normal trade. But someone has to produce and someone has to sell this stock, and we venture to say that the man who has been square with his customers in the past is the one who is securing the trade to-day. Moreover, he is picking up an occasional new customer, who formerly bought from other members of the trade.

The case of the individual customer and the salesman to-day affords an interesting comparison with the case of Germany and the Allied Forces. Germany is finding, and will find to much greater extent after the war, that the inhuman treatment she is now meting out to the nations with whom she is struggling, is being set down against her by the commercial world. Her trade is already ruined. Her reputation has gone, and no matter how excellent may be her products, all of her work in the past has been set at naught by the excesses of the past month and a half. Her merchants in the future will have a terrible handicap to face in the markets of the world. Merchants of other countries, which are recognized by the large consuming nations of the world as playing the game of war fairly, and the merchants of those other countries which are not engaged in the war, but which have a high reputation in the markets of the world, are capturing these markets and taking "the place in the sun" of the business world which was formerly occupied by Germany. After the war is over, they will be able to hold their new positions for many a long year, and German merchants will look with vain regret upon the ruin of their country's fair name and of their own profitable trade.

There are no intricate details about this situation. It is a simple one, but one which is fraught with a living and everlasting truth. Fair dealing among individuals, as among nations, is certain to bring great and lasting rewards to those who practise it.

Can Lumber Be Trade Marked and Standardized?

So much that is indefinite and that leads to nothing has been written and said during the last few years about advertising lumber to the consumer and about adopting definite grades in connection with different classes of lumber, and so much that has been written has brought about no practical results, that any new discussion of the subject is likely to meet with indifference, because one expects it to be simply of a theoretical nature, lacking in the practical features which would permit it to be put into useful practise. Nevertheless, there is to-day no more important subject for lumbermen to discuss, because, in spite of the objections that are so often made, nearly every one in the lumber business realizes that somewhere in the dark unexplored regions of this same theoretical discussion there exists a nucleus of practical common sense which is susceptible of being developed into a workable scheme, when the time is ripe and the proper men take hold of it. That nucleus has been located and developed in some districts of the United States in a way which indicates that, before many years have passed, those who are still working in the dark will see light and come out into it.

There is no need to argue about the existence of the troubles of the trade, which movements of this nature are designed to overcome. They are known to everyone. They may nearly all be summed up in the statement that the manufacturer does not know the consumer or his wants, and sometimes has little knowledge of the uses to which his products can best be put. He has been content to follow the old trails blazed in the days when the market for lumber had not been invaded by other materials, and when it was a comparatively easy matter to sell all the lumber any mill could turn out; at the same time, making a good profit upon it. To-day, things are very different, and there are many mills throughout the country which are not able to operate at a profit, and are either closed down or are turning out lumber at a loss. The problem is to reach the consumer in some such way as to awaken once more his old-time interest in lumber and induce him to make more use of it, at the same time giving him a better understanding of its uses than he has today. There is no suggestion in this that the manufacturers need to overlook the retailers, but rather that manufacturers, wherever possible, should co-operate in a campaign of spending money plentifully, so as to put into the hands of consumers throughout the country such information as will make them appreciate to the full, the proper value and use of the different classes of lumber which are available in their districts.

After reading many articles and addresses upon this subject which have led nowhere, and which have been published or delivered during the last few years, it is encouraging to come across one of a different stripe, for which the credit goes to Mr. A. W. Cooper, Secretary of the Western Pine Manufacturers' Association, which recently held its semi-annual meeting. We believe that Mr. Cooper's conclusions upon this question will appeal so strongly to our readers, that we are reproducing them elsewhere in this issue, and we wish to apply them to conditions in some parts of Canada, so as to press the matter more closely home to our readers. Mr. Cooper claims that most lumber manufacturers are many years behind the times in their merchandising methods. While other industries have been using advertising in its many forms, and have been adopting trade marks with which the public are made familiar throughout the length and breadth of the land, lumber manufacturers have been content to turn out stock and to feel that their interest in the use of lumber has come to an end as soon as they shove it into a railway car. If it were not for the frequent kicks coming from consumers and being sent on to manufacturers by retailers, manufacturers might never think otherwise, but to-day, the man who is disappointed in regard to lumber which he has bought, will at once make inquiries as to where he will get some other kind of stock, or where he can even use some substitutes. This tendency is becoming so general, and is so natural a result, that the opportunity of the manufacturer of lumber seems to be clear. The consumer who has been disappointed is practically virgin ground for sowing information about the varieties and uses of lumber. Moreover the consumer who has not been disappointed, and the prospective consumer who has not yet bought any quantity of lumber, but it likely to do so, are all looking for similar information. There is a natural tendency in mankind to use lumber wherever it is suitable, but unfortunately this

tendency has been banked upon too long and its credit has been strained to such an extent that, to-day it must be re-established by vigorous artificial means.

The suggestion made by Mr. Cooper is that the manufacturers of a particular class of lumber should, through their associations, decide to adopt a trade mark to be stamped upon the product of their mills; that the use of this trade mark should be regulated by an employee of the association stationed at each mill, and that this should be vigorously backed up by the adoption and use of standard methods of grading, manufacturing and seasoning. A plan of this nature could be used in Eastern Canada in a manner which would benefit the manufacturers of the several kinds of lumber. Take for instance white pine. No other wood in the world has so good a name and such claims to popularity. By adopting a plan of this sort, consumers would soon be educated to a knowledge of the wood and its uses, and would be calling for it—and what is more, knowing it when they got it—to such an extent as to make a great improvement in the general demand.

White pine is not the only wood for which such a plan will work out satisfactorily. Every other wood which is manufactured in quantities could be handled in the same way. The success which has met the advertising campaigns adopted by cypress and gum manufacturers and by a few others, shows clearly that the consumer is ready to spend money more extensively on any class of wood, if some one will only teach him when and how to use it. A wood which has been standardized as to its grades and which has been trade marked so as to make its presence known wherever it goes, lends itself naturally to a campaign for advertising which will bring results from the first appearance of advertising copy. We recommend our readers to turn to the article by Mr. Cooper and give it more thought than they have given to many other articles upon a similar subject. The question is one which they must solve sooner or later, unless they are content to go on losing trade and profits as they have in the past.

May Put Export Duty on Pulpwood and Pulp

An example of the diversity of opinions and rumours developing out of the effect of the war situation upon trade, is afforded by the case of the pulpwood industry in the various provinces of Canada. A few years ago, when the question of prohibiting the export of pulpwood was under consideration by several of the eastern provinces, and was also brought before the Dominion Government, the opinion was unanimously expressed that the prohibition of the export of pulpwood from Crown lands was entirely a matter for provincial regulation. As the situation worked out at that time, this view prevailed and Ontario, Quebec and New Brunswick passed laws prohibiting the export.

A question of a rather similar nature was brought up recently in the Canadian House of Commons in such a manner as to lead to a definite belief that the government will consider the imposition of a duty on pulpwood as a possible future means of raising additional revenue made necessary by the outbreak of war. Honorable W. T. White, Minister of Finance, when making his announcement respecting the increase of customs and excise duties on coffee, sugar, spirits and tobacco, was questioned by Mr. E. M. Macdonald, of Pictou, N.S., who asked whether the imposition of a duty on fine matches had been considered, and said further: "I am sure that the Minister must have considered the wisdom of imposing an export duty upon pulpwood and pulp. The cost of paper abroad might well serve the purpose of contributing to our revenue. Our great natural resources in that respect will be drawn on, particularly at this time, by reason of the extra demand for paper arising in other countries."

The Minister of Finance in reply said, "So far as an export duty on pulpwood is concerned, that matter was not under my consideration but I should be glad to take it into consideration in connection with any further action we may have to take for the raising of revenue of a special character connected with the war." This is a very definite statement indicating that the Minister of Finance believes that the Government will be able to impose an export duty of this nature. It is probable that in making this statement the Minister was referring to pulpwood taken from private lands which could be exported.

The situation in regard to pulp grown upon Crown lands subject to an embargo against export is apparently very different. According to a recent news despatch sent out from Toronto, the Ontario government will be asked shortly to suspend or repeal the embargo on pulpwood cut from Crown lands, and destined for export to the United States. The move, it is said, would not only be a benefit to the Canadian pulp and logging industry, but would meet the great demand of the moment for governmental provision against unemployment. On the latter score it is likely that the petitioners would have a large mass of public opinion behind them. The Crown lands embargo now exists in Ontario, Quebec and New Brunswick and it is known that the Premiers of these provinces, particularly of Ontario and Quebec are decidedly averse, on more grounds than one, to throwing open the doors to wholesale exports, no matter what temporary reason may arise. However, a petition has not been formally presented and its request may be modified before the government is asked to act. Just now, in Canada, the air is full of suggestions for overcoming unemployment, most of which will evaporate. If the provinces were to remove for a time, the embargo on the export of pulpwood cut from Crown lands, it is probable that any exports, thus brought about, would be liable to such export duties as the Dominion government might impose for war revenue purposes.

The steamer Rober Dollar, which sailed over a month ago from a British Columbia port, carrying 5,000,000 feet of timber, most of which is consigned to Toronto, to be used in connection with the harbor works, is reported to be in harbor at Rio de Janeiro, Brazil, awaiting war developments that will permit her to continue her journey. Originally the Robert Dollar was to have gone by the Panama Canal route, but assurance could not be given as to the time when the canal would be open for traffic, and the vessel was directed around the Horn. As events have turned out, she would have been almost as far along if she had waited in the Bay of Panama, and locked through with the first ships on August 15th. At the same time the company would have saved several thousand dollars in fuel and other running expenses.

An important point has recently come up for discussion among lumber shippers on the coast of British Columbia in connection with the Panama Canal charges. The Canal regulations involve payment for deck loads according to the space occupied on the open deck. This makes lumber shippers pay about 20 per cent. more than shippers of other commodities. For example, if the Robert Dollar had passed through the Canal it would have paid $5,679.60 on its net measurement of 4,483 tons at $1.20 per ton, and also $1,653.60 additional for the deck load of 1,378,000 feet. The ship loaded with heavy general cargo would be down to her plimsoll marks—carrying about 8,800 tons. Loaded with lumber, she would not be quite down to her plimsoll marks. No charge is levied for deck loads on vessels passing through the Suez Canal.

Owing to the closing of the Baltic, there is a great scarcity of pit props in Great Britain, and Mr. Hamilton Wickes, His Majesty's Trade Commissioner in Canada and Newfoundland, with offices in Montreal, has been making inquiries in Canada as to whether Canada can supply these props. He states that there is a demand for 1¾ million props per week; they must be 5 ft. to 6 ft. long and 3 in. to 6 in. diameter, and of sound timber. Mr. Wickes is desirous of getting quotations and quantities, and of knowing whether the supplies can be made continuously. Prices must be f.o.b. Canadian ports.

Canada's exports of forest products during the twelve months ending June, 1914, and during the corresponding periods in the three previous years were as follows:—1914, $43,241,666; 1913, $43,518,571; 1912, $41,743,304; 1911, $43,514,655.

The Reader's Viewpoint on Trade Topics

War's Influence Upon Trade Conditions—Improvement Looked For In Near Future—A Camp Wages Question.

Articles or letters to the Editor of the Canada Lumberman, dealing with trade conditions, or discussing questions of interest to manufacturers, wholesalers, or retailers of lumber are always welcomed by our readers. Here are a few that have been received lately:—

Lumber Trade Situation Certain To Improve

A prominent lumber manufacturer and wholesale dealer, with head office in Toronto, commenting recently upon the general trade situation which has developed since the opening of the war, said that he believed the people of Canada as a whole had formed mistaken views of the effect upon trade to be expected as a result of the war. There was no reason at all for looking upon the situation in a pessimistic way. "Conditions in Canada," he said, "are likely to cause a great increase in business activity. In fact I think that in the United States a similar activity has already commenced. We had more American inquiries during the first three weeks of the war period than we had had in two months previous. Quite a number of these inquiries we have managed to convert, and we are converting others right along. After taking the situation from a business standpoint and analyzing it what reason can you find for lumbermen to become depressed? There is no reason whatever. It is quite true that the banks have issued a letter to the lumber trade, telling them to be very careful about their logging operations and saying that they will not be able to make any credit advances except upon special arrangements for this year's cut. This means that only the firms that are best situated will have any cut at all, and that the total output will be greatly reduced. It is certain therefore, that from now on, stocks of lumber will be reduced and prices will hold steady, with a strong tendency towards advance. This country has got to go ahead just the same as ever as consumers, and, in addition to that, European countries are practically out of the market as producers. This means that Canada and the United States are called upon to supply, not only what they formerly imported, but the deficiency in the manufacturing output of European countries. It means a stimulation of the demand for labor both in Canada and the United States, and when this result has been brought about, there is no possible way of avoiding a similar stimulus to all of our other markets.

"If you sum the whole situation up, you cannot help but conclude that the cut that will be taken out this winter will be very small, and the chief question of importance at present is, how long the war is likely to last. If it drags on for a long period, it means that the market will be cleaned up to meet the enormous demand. Even if the war closes soon and the operations in the woods have been small, as they are sure to be, there must then be an unprecedented shortage of lumber."

Should Camp Wages Cover Rainy Days?

Editor Canada Lumberman: Huntsville, Ont., Sept. 4.

There is one practice among Canadian lumbermen in this northern district which I think is an error, causing friction between the camp foreman and the men unnecessarily.

It has been the custom for many years past to hire camp men by the month. They have been allowed pay for wet days as well as dry. In Michigan and Wisconsin it has been the custom to allow a man his board during wet days and the man would lose the time. I think this is a much fairer and better method. When there is a slight rain, if a man wishes to lose his time there is not such a heavy loss on the company. The man may be subject to rheumatism or some disease such as eczema that compels him to seek shelter from all wet weather. If a man were to lose his time during wet weather the proposition would be up to him whether he went out to work or not. The matter of wages would adjust itself.

I would like to have the views of other lumbermen on this particular subject.—Muskoka Wood Manufacturing Company, Limited.

Canadian Production Should Be Stimulated

Editor Canada Lumberman: Gibson, N.B., August 26.

The shock of the outbreak of hostilities has produced a paralysis of business from which it has not yet recovered. The Baltic supply of wood goods has been cut off entirely, and will probably not have to be considered while the war lasts. Consequently, England, France, South America and South Africa must turn to Canada and the United States for their supply of lumber. The demand for lumber in England and France will probably be greatly reduced, because of the war, and its restrictions in general merchandise production, but this curtailment is not likely to equal the supply heretofore furnished from the Baltic. Therefore, conditions in the Canadian trade should improve in these markets.

A material reduction in the volume of general manufactured goods will undoubtedly take place in England and France, and exportations from these countries will be greatly disturbed, while those from Germany will cease. This should stimulate the production in Canada and the United States, as importations will be reduced and exports increased (except to Europe) and South America will look to Canada for her lumber supply.

The attitude the Canadian banks assume will be of great importance in deciding the volume and business conditions of the lumber trade for 1915. While I do not advocate an expansion of credtt, I think too conservative a policy would be detrimental to the best interests of all concerned. The war has changed the normal conditions of shipping to such an extent that former calculations of the effect of the Panama canal on the world markets will have to be revised and data are lacking to guide one in forming any estimate. The problem has yet to be solved.—York and Sunbury Milling Company, Limited.

Make Arrangements for Business Improvement

Editor Canada Lumberman: Burks Falls, Ont., August 27.

The war situation has already greatly reduced our business and we are afraid it may be still further reduced, but we do not consider that it should affect domestic business if it were not for the panic which necessarily takes hold of people when such events as are now occurring occupy so much of men's thought and affect other countries so disastrously.

We believe that the ultimate result of the war will be very beneficial to Canada's business. The sooner we can settle down calmly and arrange for it, the sooner business will begin to mend. The Dominion Government, and the banks generally, are evidently doing their best to provide means for at least ordinary business, and we are of the opinion that the sooner we take courage and realize that business will soon adapt itself to the changed conditions, the sooner it will improve. To adapt the old saying, it is a case of "You smile and I'll smile and all Canada will smile."—The Knight Bros. Co., Limited.

Parrsboro Shipments Being Resumed

Editor Canada Lumberman: Parrsboro, N.S., August 25.

The first direct effect of the war, so far as Parrsboro is concerned, was the demoralization of the local timber trade and the consequent prevention of a new record being made. Deal shipments stopped entirely for a month, but are about to be resumed. A steamer is due to arrive next Friday and will probably be followed by others, but the time lost cannot be recovered this season.—E. Woodworth.

Conditions Certain to Improve Soon

Editor Canada Lumberman: Jacksonboro, Ont., Sept. 3.

We consider that Canada and the United States have their opportunity in the way of building up industries in both countries. If they fail to embrace the opportunity, it is through lack of backbone and nothing more. The lumber business to-day is decidedly quiet because of everyone talking war rather than figuring out their future policy. We are confident that conditions will change in the very near future and we are looking for good business.—New Ontario Colonization Company, Limited.

Boston Market Conditions Uncertain

Editor Canada Lumberman: Boston, Mass, September 2.

No important changes have occurred in lumber prices in this market. The market is in a very uncertain state owing to the war and we cannot see that there has been any marked change. Everything is uncertain and we cannot look ahead with any feeling of certainty that we would be right. It seems to be considered that spruce may very likely be higher, owing to the English deal situation. We understand that about fifty per cent. of their deals come from the Baltic and the entire supply is cut off for many months to come, if not for years; in which case there should be a very strong demand

for Canadian spruce deals. Nevertheless, spruce is being sent in from Canada at a sacrifice, so that there are two sides to the story. —The Shepard & Morse Lumber Company.

English Trade Improving

Editor Canada Lumberman: New Richmond, Que., August 24.

Our English business has improved within the last week owing to the Baltic being closed, but we are unable to form any idea of what future business will be. We are only shipping laths to the United States this year, and to date theh returns have been satisfactory.—Montgomery & Sons Company, Limited.

Canada's Commercial Opportunity

An appeal to Canadian producers and manufacturers to win a bloodless, but effective victory, by capturing the trade of Germany and availing themselves of other opportunitiese to which the outbreak of war has given rise, has been issued by Sir George E. Foster, Minister of Trade and Commerce.

"Canadians are intensely interested in the gigantic struggle now staged on the battlefields of Europe," says Sir George. "There is being fought out, and there will be decided the mastership of the old world—the control of the seas—the question of liberty and democratic government in Europe." The Minister then goes on to point out that Germany's industrial output has wonderfully increased in past years, owing to her superhuman efforts to build up a strong industrial system and a vast overseas trade. Her sea tonnage has increased from 1,511,579 in 1893 to 3.153,724 in 1913, and her foreign trade from $1,678,780,600 to $4,966,298,400. In 1913 her exports were as follows:

To Great Britain	$ 342,291,600
Canada	14,473,833
Australia	21,063,000
British South Africa	11,162,200
New Zealand	2,546,600
United States	169,741,600
France	187,996,200
Russia	209,440,000
China	29.226,400
Japan	29,202,600
South America	157,960,600
All Other Countries	1,227,862,387
Total	$2,402,967,000

Lost Bulk of Trade

"Under present conditions she has lost for the time being all this trade, her industrial production has been greatly reduced and her commercial marine has been practically swept from the seas. What this means to Germany we all can see: a total loss during the continuance of the war and a long period of struggle after ensuing peace to regain even a part of her former proud and profitable position, and a probable total loss of her expensive and hardly-bought colonial possessions.

"What we do not so clearly see is that this immense void in production and distribution must be filled—others must step into her place to make and distribute what Germany has for the time being been forced to surrender. For the British Empire—home and overseas—the instant pressing duty is to possess itself of a generous share of the production and trade thus lost to Germany, and so to reap the advantage of a great industrial and commercial victory which shall in some measure compensate the costly sacrifice of war. Not only should we fill to the greatest possible extent the void thus created, but we should make our position so strong in these markets as to secure ourselves from being ousted by Germany hereafter. Here is a peaceful field of operation in which we can carry on a bloodless, but most effective and profitable warfare.

"First, let us fill, so far as possible, the call for the $16,000,000 worth of goods, with which Germany and Austria provided us last year, and which will this year be absolutely debarred.

Buy from the Empire

"And what we cannot supply ourselves, let us purchase from Great Britain and other parts of the Empire. Let us covenant together to buy goods 'Made in Canada,' 'Made in Britain' and "Made in the Empire'; thus shall we give employment, and the profits of production to the Empire's home workers. Then let us find the details of what Germany and Austria have produced and sold to other countries, and set ourselves to supply as large a part of this as possible. Here are markets for hundreds of millions worth of products, the making of even a portion of which will keep our industries going and give employment to hundreds of thousands of our people. If consumers determine to buy only Canadian and Imperial goods, and producers to provide them at lowest prices and of good quality, a co-operative work of inestimable value will have been begun."

War Should Benefit Lumber Industry

One industry which should benefit almost immediately from the outbreak of war is that exceedingly important Canadian industry, the lumber business. Pulp and paper mills have already felt the benefit, but the silver lining in this particular cloud should also manifest itself to the saw mills as well as the cutters of pulp wood. The closing up of the Baltic has shut off a source of supply upon which the British market was constantly drawing not only for dressed lumber but also for pit-props used in the mining of coal in Great Britain. Unfortunately for the Canadian lumberman at the present juncture, he has never given much attention to the cutting of posts of the pit-prop variety, though the cut during the coming winter may see an attempt to supply that demand—provided always that the Baltic is not again open to navigation by merchantmen by that time. It is to the product of the land and her natural resources that Canada had better turn her attention at the present time rather than any fervid attempts to build up artificial manufacturing conditions.—The Financial Times.

An Important Freight Rate Case

Canadian railroads, led by the Canadian Pacific, the Grand Trunk, and the Intercolonial, have filed an argument with the Interstate Commerce Commission of the United States, in support of a proposition laid down by them that, with the consent of the Railroad Commissioners of Canada, they may increase their rates for Canadian pulpwood to American points without the possibility of check upon them by the American Government. The argument is made in the complaint of the International Paper Company against the Delaware & Hudson et al.

The complaint against the Delaware & Hudson is based upon the fact that nearly a year ago the Canadian railrods made an increase of one cent a pound in pulpwood rates to American mills in New York and New England. The Canadian Commissioners allowed the higher rates to go into effect.

If the consumer ultimately pays the freight, the increased rates have been paid by American newspapers. The Canadian railroads, however, insist that the Canadian producers of the pulpwood are the ones who have paid the higher rates. They claim that the International Paper Company, in fixing prices on pulpwood, quotes them f.o.b. mills, that is if the price per cord is $3 and the rate 18 cents the seller of wood gets $2.82 for what he sells. The International Paper Company, however, insists that it pays the freight. Therefore, coupled with its demand for a lowering of the rates to their old level is a demand for reparation amounting to the difference between the old and new rates.

Attorneys for the Canadian roads argue that the American commission should dismiss the complaint on the ground that the traffic originates in Canada and nearly all the transportation service is rendered in Canada and all but a small division, which accrues to the Delaware & Hudson, goes to Canadian roads. Therefore they say it is a matter outside the jurisdiction of the American commission.

Another ground upon which they argue for dismissal is that of international comity. They assert that the issues and the parties in this case are precisely the same as presented in a case before the Canadian commissioners, who came to the conclusion that the higher rates proposed by the Canadian railroads would not be unreasonable. They claim the principle embodied in the "full faith and credit" clause of the Federal Constitution operates to close the doors of the American commission to them.

The American Railroad Commissioners themselves are quoted as authority for allowing the Canadians to be the sole judges of what is a reasonable rate for American consumers of wood pulp to pay for getting their raw material from Canadian woods to American mills. In passing on a question as to soda ash rates from Wyandotte, Mich., to Canadian points the American commissioners said: "These American lines should be required to secure to these American manufacturers (in Canada) a fair rate until the Canadian authorities, which have jurisdiction over the greater part of this transportation service, have acted in the premises, or until by the action of some carrier to which our authority does not extend it has become impossible to comply with our requirements."

The Canadian roads calim that the situation now meets that condition absolutely. The Canadian roads have increased the rates, the Canadian commissioners have refused to enjoin them and they are in effect, with all the benefit, except a small division going to the Delaware and Hudson, accruing to the Canadian lines.

It is admitted by the Canadians that the American commission has jurisdiction over the parts of the through rates paid to the American lines, but that is not a practical matter because the New York Central and other American roads which participate in the haul get none of the increase, and the amount going to the Delaware and Hudson for its haul south from Rouse's Point is so small as to be negligible.

Reinforced Concrete Log Chute and Dam

Extensive Improvement Works by James MacLaren Lumber Company at High Falls on the Lievre River, Province of Quebec

By Frederick Davy

There has recently been put into successful operation by the James MacLaren Lumber Company, Ltd., of Buckingham, Que., a reinforced concrete log chute, the only one of its kind in Canada—and perhaps in the world. The structure is at High Falls, on the Lievre River, in Quebec, and it is now reported to have been in satisfactory operation for several months. From the standpoint of efficiency in delivering logs, it has recorded a great advance over the old timber chute which it replaced, and requires much less water for operation. Moreover, the discharge of the logs is more efficient, as they are delivered parallel to the river surface, thus preventing the fraying and splitting of the ends through striking the gravel of the somewhat shallow shore. The Lievre River is a stream of good volume and drains an area of 4,000 square miles. At the approach to High Falls it flows over a bed of granite and the sudden drop at that point is about 160 feet. At the head of the Falls the stream is naturally divided into two channels by a rocky island. The smaller of the two is the north channel and in nature the main or south current discharged itself over a rocky precipice in a white foaming mass. The safe delivery of logs over such a place was impossible, so, for years they had been carried down in an old rectangular-bottomed timber-built chute. In 1910 the lower section of this structure went out, after doing duty for many years. In planning a replacement it was thought that the fact that the MacLaren limits could be made perpetual justified a permanent structure. The company then decided upon a concrete chute to replace the old one and the discussion of the details concerning it revived a long-cherished desire to improve the advantages of the splendid water power so that it might be utilized so soon as a profitable opportunity presented itself. So, in making the designs for the new chute, it was incorporated as part of a large and excellent scheme of conservation and development.

James MacLaren Lumber Company's dam and log chute at High Ealls.

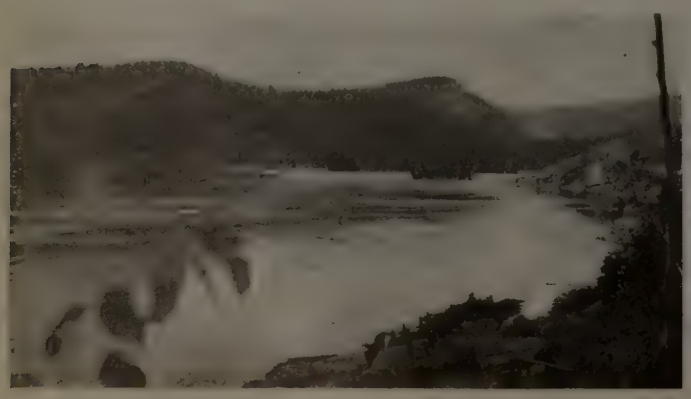
The scheme included two dams. The more important was across the main or south current. In it were the log chute outlet, the flood gates and provision for five power flumes each capable of furnishing water for a 10.000 h.p. unit. The north dam was designed as a regulating dam and was so constructed as to provide escape for the discharge of exceptionally high water. The log chute was placed to the south of the whole structure.

In 1910-1911 the lower section of the new concrete chute was built and connected with the old section above. As the workable structure thus stood, it comprised 375 feet of concrete and 1,500 feet of timber. Economy in the use of water had to be a guiding principle, as the more water went over the slide the less there would be for power. The V-shape was therefore adopted for the chute, as it was considered by far the most saving and adaptable. The design of the chute took into consideration the natural narrowing of the current in the gathering speed of the descent and the height of the sides was gradually decreased towards the foot. The maximum slope of the chute was fixed at 1 in 4, except at the lower end. There, about forty feet from the mouth, the gradient was sharply lessened and changed from a straight line to the arc of a circle of 225 feet radius. The change of grade being near the point of discharge, the retarding of the speed was so small as to be negligible and the result as designed was to throw up the lower end of the log and cause the drop to be made horizontally to the water. The upper end of the concrete chute was finished in July, 1912, and used for the discharge of the logs that year, but it was not until the completion of the whole work that the full efficiency was realized. This year the working of the permanent structure has more than justified the expectations of the engineer and the company. The new structure uses less water, discharges more logs and requires fewer men. The old slide required from fourteen to sixteen men to operate it and it discharged from 12,000 to 15,000 logs in ten hours. The new slide can be worked by six men and will discharge 50,000 logs every ten hours. The velocity of the logs in the 1 in 4 grade has been calculated to be 55½ feet per second. The total length of the slide over all is 635 feet. Its pier supports number eight. The admission gate for the logs consists of pine stop-logs bolted together. They are ten feet long, twelve inches thick and twenty-four inches deep, and are lifted and lowered by a hand winch.

Everything about the structure is of the most permanent nature. When the foundation trenches were blasted for the dam a ledge of the country-rock (grey granite) was left and against this the footing of the dam abuts. The dam has three regulating sluices. The piers between them are approximately in the shape of a long ellipse. The stop-logs for the regulating sluices are of Douglas fir and are twenty-two feet long, thirty-six inches deep, and vary from fourteen to twenty-two inches in thickness. The stop-log winch for handling them is operated by a two-cylinder steam engine which was built by the Victoria Foundry Company, of Ottawa.

The five entrances to the power fore-bay are submerged sluices covered by a reinforced concrete apron to prevent logs from being drawn in. The apron turns the logs to the slide and is carried sufficiently low to be below the point of lowest water. The draught to the power sluices cannot therefore affect the logs and the dam is so constructed that they are brought to the slide at all levels of the water.

The plans for the full structure were made in 1911 and the contract was let to Messrs. Haney, Quinlan & Robertson for the con-



North dam at High Falls, showing outlets for overflow.

Upper section of concrete log chute.

Typical section of log chute.

struction of the new dam and the completion of the log slide. Pouring concrete was started in the spring of 1912. In the whole work there are 100 tons of steel and 21,400 cubic yards of concrete. The total cost of the structure was $250,000.

The work here described is but one of several important power development structures that have been designed by Mr. J. B. McRae, of Ottawa, the engineer for the work. One of them is the dam and power house at Ragged Rapids on the Severn River, which were built for the town of Orillia. Mr. McRae designed the dam and power house (now building) for the Electric Reduction Company, at Buckingham, QQue. He was also associated with William Kennedy, Jr., in the design and construction of the splendid dam at the Chaudiere Falls on the Ottawa River, which was undertaken for the large group of power owners of the cities of Ottawa and Hull.

An Important Log Driving Decision

Privy Council Finds Association Liable for Damages Caused by Drive Which Broke Adrift—Fraser v. Dumont

A decision of much importance to lumber driving associations was recently given by the Judicial Committee of the Privy Council in the case of Fraser and others versus Dumont. This was an appeal by special leave from the judgment of the Supreme Court of Canada reversing a judgment of the Court of King's Bench for the Province of Quebec, and restoring a judgment of the Superior Court for that province whereby judgment was entered for the respondent against the appellants for $2,500 damages. The respondent is an owner of mills and land on each bank of the Cabano River in the Province of Quebec, and he brought his action to recover from the appellants the damage done to his property by timber which in April 1910 got adrift while floating down the Cabano River in the actual charge of Olivier Guerette. In the trial by Cimon, J., it was proved that extensive damage was done to Dumont's property and that it was caused by the negligence of Guerette contributed to by negligence on the part of the respondent. The Judge then held that the appellants were responsible for the negligence of Guerette and he divided the damages and gave judgment for the respondents and against the appellants for the sum of $2,500 being a part of the damage actually done. This judgment was reversed by the Court of King's Bench of Quebec, and the latter judgment was again reversed by the Supreme Court of Canada, from whose judgment the appeal was taken to the Privy Council.

The principal question was whether the appellants were responsible for Guerette's negligence. If they were responsible, no other question arose, but if not, a question of great importance arose, namely, whether persons using water courses for the transmission of timber are liable for damage done to the property of riparian proprietors, without proof of negligence. It was on account of this point being supposed to arise that special leave to appeal was given. The Privy Council however, held that the appellants were responsible for Guerette's negligence and therefore the other question did not arise.

Referring to their reasons for finding the appellants liable, on the facts, for the negligence of Guerette, the Privy Council outlined these facts. The appellants were a firm carrying on the business of lumbering and manufacturing of lumber at Cabano, and were owners of a comparatively small part of the timber forming the drive by which the damage was caused. The timber was all under the actual charge of Guerette, and it all broke adrift, blocked a bridge and caused the flood. The court held that all the owners were liable "jointly and severally," so that it was immaterial that the other owners were not joined with the appellants as defendants in the action. The liability of the owners depended upon whether Guerette was an independent contractor or whether the owners or the appellants, who, through their managing partner Mr. Archibald Fraser, took the more active part in the matter, had such control over Guerette as to make them liable for his negligence.

The timber owners in this district were in the habit of joining together in many of their operations and had joined together to form an incorporated company under the name of the "Cabano Log Driving Association." At a meeting of this association, a resolution was passed that the driving of logs on the Cabano River "be sold" to Archibald Fraser for the base price of 80 cents per M. It had previously been resolved that this meeting should be held and this resolution appeared to have been advertised, or in some way to have come to the knowledge of Guerette. He, being unable to be present, had requested Archibald Fraser to bid for the drive on his behalf. Shortly after the meeting it was agreed between Guerette and Archibald Fraser that he, Guerette, should conduct the drive and receive 80 cnts per M. feet as remuneration. The whole case turned upon the terms of this agreement, and they were by no means clear. The Privy Council held that it was clear that the owners of the logs did entrust them to the conduct of Guerette on the terms, whatever they were, of the arrangement made between him and Archibald Fraser. Therefore, it was of no importance whether the acts done in bringing about that result by the officers of the Log Driving Association were to be considered as acts of the corporation, or the acts of the individuals. Guerette was a man of experience in log driving but of no means whatever. The money required to pay the men who worked under him was found by the appellants. It was said that this would ultimately have been set against the 80 cents per M. The Privy Council agreed with Mr. Justice Cross that there was no bona fide contract such as would relieve the owners of the logs from liability, and that Guerette remained under the control of the owners or of Archibald Fraser acting for the owners. They decided therefore that the appeal should be dismissed with costs both before the Privy Council and below.

Lumberman's Building and House of the Hoo-Hoo

The structure which is planned for immediate erection at the Panama-Pacific International Exposition, by the "Concatenated Order of Hoo-Hoo" as a meeting place for the lumbermen of the world, will undoubtedly attract the attention of hundreds of thousands of visitors to the exposition. The "Lumberman's Building and House of the Hoo-Hoo," as the structure is officially entitled, will be located in the South Gardens of the Exposition, close to the Palace of Horticulture, just within the main entrance gate to the grounds. In designing the building, the architect has given his creative fancy full swing. The whole is a combination of trees, woody plants, shrubs, ferns, mosses, bark, lumber, shakes, shingles and logs.

The columns of the peristyle and pergola will consist of logs of all the different commercial species of the coastal states in diameters from 24 in. up to 40 in., and in conjunction with the logs from the mature trees will be planted saplings from the several species, giving visitors the opportunity to trace the characteritsics of the young and old growth; while within the building the manufactured lumber will be exhibited. These exhibits will include California redwood, sugar pine and white pine, Oregon spruce, white cedar, Douglas fir, hemlock and red cedar of both Oregon and Washington. The interior will be fitted up for the combined purpose of providing homelike surroundings with rest rooms, writing rooms, smoking rooms, and assembly rooms. All of the coast woods will be shown in an attractive manner within the building, the purpose being to give each specie equal representation in different portions of the structure.

Supplemental to the exhibit will be the service of a regular attendant in the building who will be competent to discuss intelligently any question that may be raised by visitors. It is also expected that the Coast lumbermen, particularly those in San Francisco, will so arrange their time as to devote considerable personal attention to explaining the merits of their particular wood to the visiting lumber men and importers.

Organizing to Capture Trade

A representative meeting of the Toronto Board of Trade, presided over by President W. P. Gundy, and including members of the board from almost every industry and class of business, was held in the council chamber of the Board of Trade recently to discuss ways and means of fostering Canadian trade. It was felt that the present was a very opportune time for Canadian manufacturers to extend their markets and to manufacture new lines heretofore imported into Canada, and that the stimulation of Canadian manufactures in this way would necessitate full staffs, and consequently relieve unemployment to a large extent. Those present resolved themselves into a special committee for the study of the question, and unanimously appointed Mr. A. O. Hogg chairman. Messrs. A. O. Hogg, H. C. Boulter, C. D. Daniel, M. C. Ellis, E Holt Gurney, Arthur Hewitt, Henry H. Mason, Miles Vokes and C. H. Willson were appointed an Executive Committee with power to add to their numbers, to nominate sub-committees for the gathering of statistics and securing suggestions from all lines of industry as to the best method of attaining the object in view.

B. C. Loggers Want Lower Export Charges

A report from Vancouver, B.C., states that the British Columbia Government has decided to remove the restrictions upon the export of a major percentage of logs lying in British Columbia coastal waters. This will permit a large number of logs to be sent to the State of Washington. In regard to this raising of the ban on longs, members of the B. C. Loggers' Association state that very little, if any, relief is afforded by the Government's action, on account of the low price the loggers would receive after the charges demanded by the Government had been paid. The Government was asked to allow exportation of 125,000,000 feet free of all charges except the royalty of 50 cents a thousand, but could not see its way to grant this. The scale of export charges proposed, loggers declare, will render it impossible to sell logs at Washington prices profitably.

Lumber and Its Interests at the C.N.E.

Manufacturers and Dealers in Lumbermen's Equipment, Machinery, Etc., Made Excellent Showing—British Columbia's Fine New Exhibit

The lumber industry was, as usual, represented at the Canadian National Exhibition, at Toronto, this year by a varied and interesting display of equipment of various kinds for sawmills, lumber camps, woodworking factories, etc. These exhibits, on account of the fact that they represent so many different lines of industry were shown throughout the many buildings at the Exhibition. Nothing in the nature of a combined exhibit was possible. Nevertheless, the exhibits were so well placed and prominently displayed that it was an easy matter for those who were interested to locate them.

One of the most unique and interesting exhibits from the lumberman's point of view was that of the government of British Columbia which was under the direction of Mr. W. A. Lang, Exhibition Commissioner for the B. C. Government. The resources of the province were shown in an attractive form, and the lumbering industry was given prominence over all. B. C. fir, doors, veneers and panels, as well as B. C. shingles were attractively displayed. A canopy of fir was arranged over the whole exhibit and demonstrated the beauty of this wood to splendid advantage. A small office building was erected, which was built of B. C. fir from the shingles on the roof, to the floor, and at the side of this building were placed samples of all kinds of fir panels, doors, etc. A large sign prominently displayed drew attention to the fact that British Columbia's output of forest products now annually amounts in value to $30,000,000.

The Autographic Register Company of Canada, Limited, of Montreal, had an attractive exhibit which included their "Shouperior" Manifolder, a practical and useful device for relieving office managers of the extensive detail work in connection with the keeping of accounts. The "Shouperior manifolder" is especially adapted to the retail lumber business. The register issues three or four complete records for every sale with one writing and every record is printed separately and numbered consecutively alike. The order is written on the manifolder. The office retains the invoice and charge copy and sends the last or driver's copy to the shipper who prepares the goods and makes delivery, sending along with the driver the delivery ticket to be signed by the recipient of the goods as an acknowledgement of receipt. When the driver brings back his copy and turns it into the office, it is compared with the invoice in the charge copy, which is then mailed to the customer. The account is charged from the office copy, which is then filed alphabetically while the delivery ticket is filed numerically. In this way the "Shouperior" manifolder eliminates the order book, driver's book and day book, as well as providing the invoice for the customer.

Mahaffy Trucks, shown by W. F. Mahaffy, Plymouth Avenue, Toronto, were examined closely by owners and managers of lumber yards, planing mills and woodworking plants. Trucks have become one of the most important factors in labor-saving in connection with factories of every description, and this company's production attracted particularly wide attention. It included warehouse and factory trucks of every description, including an ingenious and practical truck designed upon a tilting principle, the centre wheels being higher than the end wheels, and the truck being equipped with loose posts. The end wheels of this truck travel on a steel axle furnishing complete facilities for turning corners. This is a principle possessing many advantages over the swivel wheel. It has been thoroughly tested for many years by European manufacturers. Mr. Mahaffy has recently issued a very comprehensively illustrated catalogue and any one interested in trucks should send for a copy.

Beal Bros., Limited, Toronto, tanners and manufacturers, had a very attractive exhibit of the well-known line of "Round Knife Brand" harness, horse collars, blankets, rugs, etc., which attracted interest from all who were concerned in lumbering operations. Among their products was an excellent display of oil tan moccasins and sporting boots. These moccasins are now sold in large quantities, among many of the lumber camps of Canada. With their excellent tannery at Uxbridge, Ont., this company can accept any quantity of orders, and they pay particular attention to filling all orders satisfactorily and rapidly.

The Positive Clutch and Pulley Works, Limited, 11-15 Jarvis Street, Toronto, whose factory is located at Aurora, Ont., showed an interesting line of their products in the Machinery Hall. Among these were their all-wood separate pulley and combination pullley and their multi-disc gas engine clutch. These lines have secured much favor among lumbermen. Another interesting feature of their exhibit was an automatic fire hose reel, which permits of all the water force being turned on instantly without the removal of any of the hose. Thus a full stream can be directed upon a fire immediately, while the hose is being uncoiled.

The Bishopric Wall Board Company, Limited, Ottawa, Ont., had an excellent exhibit of lath and stucco boards for interior and exterior use. This wall board is claimed to be equally suitable for schools, residences and stores, being non-inflammable, weather proof and comparatively inexpensive. The well-known Bishopric sheathing has equally wide favor among contractors, chiefly because of the ease with which it can be applied, and also because of the attractive panelling effects produced by its use in residences.

The Brantford Roofing Company, Limited, Brantford, Ont., made a unique exhibit of their well-known roofing and galvanized sheathing, insulating and building materials of all kinds. The exhibit also included an interesting display of Brantford asphalt shingles, which attracted much favorable attention. They also showed an interesting line of paints including "Roofleak" paints and "Superior" roof coating which can be used upon cement, metal, steel and woodwork.

The Preston Woodworking & Machinery Company, Preston, Ont., had excellent exhibits in the Machinery Hall showing a number of important lines of woodworking machinery to splendid advantage. Woodworkers who know the importance of good machinery in a plant, are continually increasing their interest in this company's products and spreading its good reputation.

The James Morrison Brass Manufacturing Company, Limited, Toronto, exhibited a full line of steam specialities in the Process Building. One of the special features of this exhibit of interest to lumbermen was their Board Measuring Register. This device can be attached to saws or planers and it automatically and continuously measures the lumber, giving the result in lineal or board measure as desired. It can be used either for filling small orders, or for totalling the day's run. The register consists of a measuring wheel which travels over the cut lumber as it comes from the machines, and the revolutions of this wheel are recorded by a standard counting apparatus. The totals given by the register represent the actual number of feet of lumber run.

The Shurly-Dietrich Company, Galt, Ont., one of the earliest and most consistent exhibitors at the C. N. E., followed their previous practice of displaying their excellent lines of saws and tools upon a large section of wall space in the Industrial Building. This method of exhibiting rendered the display one of the most noticeable and attractive at the exhibition and indicated at the same time that the productions of this company must be among the very finest of their class. The Shurly-Dietrich Company claim to be the largest manufacturers of saws in the British Empire. Moreover, their complete line of products is entirely of Canadian make.

The Canada Machinery Corporation Limited, exhibited, in the Machinery Hall, many of their widely known lines of woodworking machinery including molders, tenoners, chain mortisers, etc. The lumbering and woodworking industries have become familiar with this excellent line of machines, and many visitors took a keen interest in the exhibit.

The Tallman Brass & Metal Company, Hamilton, Ont., exhibited in the Industrial Building and showed an especially wide range of productions, including their carburetor for gasoline engines. Among their other lines which were of special interest to the lumber trade were special "Arctic" babbit for sawmill and lumber machinery, manganese bronze casket and XXX genuine "Arctic" metal for heavy machinery. This company also showed a splendid assortment of electric fixtures.

Cowan & Company, Galt, Ont., had, sas usual, one of the most interesting exhibits in Machinery Hall which attracted the attention of many owners and managers of woodworking companies. Their exhibit included most of their well-known line of products and was studied closely by many lumbermen.

Gutta Percha & Rubber, Limited, Toronto, displayed a splendid line of belting, packing and hose in the Process Building. Their well-known lines of "Monarch," "Red-Strip" and "Lion" belting, were shown, as well as their "Redstone" high pressure sheet packing.

The Canadian Hart Wheels Limited, Hamilton, Ont., whose booth was located in the Machinery Hall, had an interesting display of their well-known Corundum wheels. One of the features of this exhibit was the demonstration of an Improved Automatic Hart Saw Sharpener. These machines have been in continuous use in the lumbering industry of Canada for the past thirty years and have abolished the

old manner of hand filing in all up-to-date plants. By the use of this machine every tooth of the saw is turned out in exactly the same size and shape as all the others.

The Cling Surface Company, Buffalo, N.Y., had a specially attractive exhibit in which they demonstrated the advantages of their products in connection with the use of machinery belts. So efficient has this product proved itself to be that belt users are realizing that by its use they can save a great deal of expense in power transsion. The company, as a result, is rapidly increasing its already large list of customers in Canada.

Batts Limited, Toronto, exhibited an especially attractive assortment of doors, columns and interior finish in the Industrial Building. One of the interesting features of their display was the handsome new catalogue they distributed. It is profusely illustrated and shows an exceptionally wide range of sash, doors, trim and interior woodwork generally.

The Dominion Belting Company, Limited, Hamilton, Ont., exhibited their widely known "Maple Leaf Belting" in the Machinery Hall. This was shown in a number of sizes and thicknesses. The lumber trade is already thoroughly acquainted with the good features of "Maple Leaf Belting" and has been responsible for a large volume of the orders sent to the company's factory in Hamilton during the past year.

Henry Disston & Sons, Toronto, showed a splendid assortment of saws of every description for use in connection with the manufacturing and working of lumber. This company's products cover an exceptionally wide range and their excellence is such as to have made them a standard for comparison. Their booth attracted a great deal of interest and was most attractively arranged.

The Sasgen Derrick Company, of Toronto, showed a splendid line of their hoists and derricks which are finding favor among the Canadian trade. This concern make several lines of lumber derricks and although operating their Canadian factory a little over a year their lines are to be found in all the larger centres throughout the country.

A. R. Clarke & Company, Limited, of Toronto, tanners and manufacturers of lumbermen's and sportsmen's clothing, had a most attractive exhibit of gloves, mitts, mocassins, mackinaw clothing, etc., in the Manufacturers' Building. This large and progressive firm manufacture from the hide to the finished product and their lines are sold from coast to coast.

The Pratt & Whitney Company of Canada, Limited, Dundas, Ont., exhibited a full line of their small iron tools, taps, dies, reamers, drills, etc., in the Machinery Hall. One of the attractive features of their booth was a large Maple Leaf formed entirely of the tools manufactured by this progressive firm.

The Chapman Ballbearing Company, Limited, Toronto, exhibited their well-known lines of bearings, which have become widely used by manufacturers who are interested in the maintenance of efficient transmission equipment in their plants.

The Laidlaw Lumber Company, Toronto, made an interesting display of the excellent lines of doors, interior trim, etc., which they handle.

The Commercial Oil Company, Limited, Hamilton, Ont., had a large display of their well-known greases, oils and lubricants which are so favorably known to the lumber industry.

The Jos. Dixon Crucible Company, of Jersey City, N.J., exhibited in the Transportation Building, their widely known "Silica Graphite Paints," which attracted a lot of attention.

The Chisholm Milling Company, Limited, of Toronto, had an interesting display of Canuck Oats and also the well-known Purina feeds for horses, cattle, etc. Their tent on the grounds was visited by a large number of people interested in these lines.

The Garlock Packing Company, Limited, Hamilton, Ont., showed complete lines of their packings and mill supplies in the machinery hall. Their representative was one of the busiest men at the Exhibition, answering inquiries regarding this widely-known line of goods.

The Dodge Manufacturing Company, Limited, Toronto, showed a splendid line of transmission goods, pulleys, etc., in their spacious booth in Machinery Hall.

The Canada Metal Company, Limited, Toronto, had a large line of their products on exhibit in the Machinery Hall. "Everything in metal," is their motto and it was well borne out by the comprehensive nature of their exhibits.

Mr. G. P. Magann, Toronto, the well-known railroad contractor has suggested that the Government should either finance lumbermen to put in pulpwood cutting camps in the bush of Northern Ontario, during the coming winter, or else should take charge of the work themselves, so as to provide work for the unemployed, and help to relieve the scarcity of raw material for the production of paper, which is now very keenly felt.

"If You Want Markets Go After Them"

Sir Geo. E. Foster, at one of the luncheons given by the Directors of the Canadian National Exhibition, delivered a stirring and practical reference to the new trade situation created in Canada by the war. This was no time for despair, he said. It was a time for opportunity. The day had come when Canada should not only see to it that the wheels of commerce and industry were kept running within her own borders, but she should branch out into the markets of the world and enter into competition for that trade which Germany today was unable to handle. In emphasizing the "enormousness" of the war, the Minister of Trade and Commerce pointed out that nearly 900,000,000 of people were engaged in warfare through their allegiance to the flags of the different belligerent nations, and these people constituted the most intelligent, most progressive and most productive of the nations of the world. The effect has been to put all countries into "watertight compartments," commercially speaking. In this respect the world was never before tied by so many strings.

Sir George then asserted that this dislocation was entirely different from annihilation. It was only temporary. When the war broke out the sea routes were "studded with peril," "but since that time the great dislocation had been swept aside and the commercial routes of the ocean were pretty nearly as safe now as they ever had been. This had been followed by a financial dislocation, and although the world had been temporarily turned upside down, it would right itself again, and in the righting it would produce a better condition of things than before.

Canada was fortunately situated, continued Sir George, to go through a period of depression without great dislocation. He pointed out that Canada's exports of "primary" products last year amounted to $432,000,000. The estimated value of the field crops was $552,000,000, and there was no reason to suppose that this year's harvest would fall much below that figure. "Let us keep before us this broad-based distinction. Let us make our position in Canada absolutely better than that of any other "primary" producing people." While a primary producing people, Canada also stood in the position of a manufacturing community. One of the immediate resutls of the war would be the need for rehabilitation. While this was the farmer's day more than ever before, there was the question of continuing the industrial development of the country. In twenty years Germany had developed a great military system and a great industrial system. Germany's foreign trade last year amounted to $2,420,000,000. To-day, Germany's commercial fleets had been wiped off the seas, and to-day, even if she could sell her products, she would not be able to deliver them.

This German foreign trade was now open to three nations—Great Britain, United States and Canada. "Do you want markets, you manufacturers? Then go after them. What better could you ask than to have a fair competition for these markets?"

In the face of these opportunities it was the duty of labor and capitalist, of employer and employed to set their heads together and by proper co-ordination and organization to go after these markets. "Let us be of good courage," said the Minister. In this way patriotism could find its expression in patronizing the home markets. The manufacturer should buy his raw materials, where obtainable, in Canada, even at a slightly increased cost. The Canadian consumer should see to it that he bought the Canadian product.

The bankers, said Sir George, were looking at the question in the right way, and it was their duty to see that no honest, well-based industry should go to the wall for the lack of financial help. He thought the bankers were prepared to do that. The Government had gone a long way to put the bankers in a position to do that, and he believed it was their aim to work along those lines.

Quebec Cullers' Report

The following comparative statement of timber, measured and culled to date, is furnished by the Supervisor of Cullers' office, under date of Quebec, September 4:—

	1912 Cubic Feet	1913 Cubic Feet	1914 Cubic Feet
Waney white pine ...	830,280	216,600	546,240
White pine	1,400	7,560	.....
Red pine	1,400	960	1,040
Oak	73,520	115,840	292,560
Elm	275,280	211,520	299,280
Ash	480	1,000	680
Birch and Maple	38,640	47,680	50,800

Ottawa Company's Improved Facilities

New Duke Street Plant of the McAuliffe Davis Lumber Company— Modern Equipment and Practical Layout

Head Office McAuliffe Davis Lumber Company, Ltd., Ottawa.

Interior of McAuliffe Davis plant at yard A, Ottawa.

Readers of the Canada Lumberman have already become familiar through our columns with the interesting developments and improvements which have been made by the McAuliffe Davis Lumber Company, Limited, of Ottawa. A description and plan of their yard "B" and plant on Chamberlain Avenue, was published in our issue of March 1st. We are pleased now to be able to show our readers interesting illustrations of the new plant at Duke street which the company have recently completed. The head office of the company is located in connection with this plant and also what is known as their yard "A." This yard extends about 600 yards x 200 feet in depth with a frontage on Duke street on one side and on Britannia street on the other side. At this point the company conduct a very extensive business. Yard "A" handles a great deal of stock for contractors and is used as a basis for shipping mixed cars to lumber dealers within the radius of territory which it can cover. Also, at this point, the company do a large amount of milling work both for their own and for foreign accounts. This has necessitated the installation of the most modern equipment and convenient facilities.

The buildings at this plant are of the semi-fireproof type with solid brick walls. The mill has been laid out with the machines in series, so as to get the best possible results. For instance, on stocks to be resawn, in order to save re-handling, the re-saw is located at a point which permits of the stock being passed through a matcher after leaving the re-saw, without any unnecessary re-handling. Each machine in this plant has a unit motor drive. The company have entirely dispensed with overhead shafting and belting. One of the accompanying illustrations gives an excelelnt idea of the clear space provided around the machines, showing the moulding racks in the distance, and it also affords an idea of the convenience with which stock which has been run can be passed along on two-wheeled trucks to the bins in which it is to be stored.

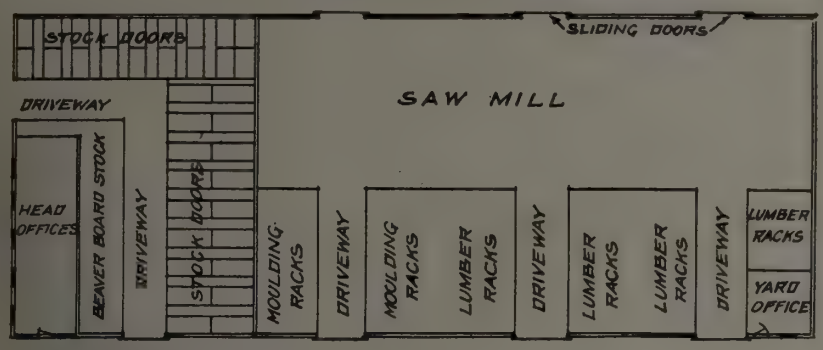
Another illustration gives a good idea of one section of the dressed lumber shed which is brightly lighted from overhead, and convenient in every way, both for loading in and loading out. An interesting detail which will be noted by all practical lumbermen is shown in one of the illustrations in the form of a "no smoking" sign. These

Section of dressed lumber shed, McAuliffe Davis' yard A, Ottawa.

Interior of McAuliffe Davis plant at yard A, Ottawa.

signs are placed at noticeable intervals throughout the plant and all employees are requested to assist the company in keeping the fire risk down to a minimum.

Another illustration shows one side of the mill including the rip-saw and showing lumber on two-wheeled trucks ready to pass through.



Plan of Yard A. and Mill—McAuliffe Davis Lumber Company, Ottawa.

On the right in this illustration is shown the side of the shavings vault, the exposure of which is on the back street and quite outside of the building. Another illustration shows the outside of the head office of the McAuliffe Davis Lumber Company, Limited.

Forestry Director's Annual Report

The annual report of the Director of Forestry for the Dominion of Canada, for the year 1913, has just been issued and contains much material of importance to those who are interested in forestry matters. The report shows that the appropriation for the Forestry Branch during the year 1912-13 was $364,500. The expenditure was divided as follows:—Salaries at Ottawa, $12,000; travelling expenses, $5,000; forest reserves, $169,300; fire ranging, $99,000; printing and stationery, $10,000; tree planting, $49,500; forest surveys, $13,000; statistics and products, $4,700.

From statistics which have been published by the Department in separate bulletins it is estimated that the total value of the different classes of forest products in Canada annually is about as follows: lumber, lath and shingles, $84,000,000; firewood, $50,000,000; pulpwood, $12,000,000; posts and rails, $10,000,000; Cross-ties, $8,000,000; square timber exported, $1,900,000; cooperage, $1,700,000; poles, $1,200,000; logs exported, $1,100,000; tanning material, $1,000,000; round mining timber, $600,000; miscellaneous exports, $300,000; miscellaneous products, $10,500,000; total, $172,300,000.

An appendix to the report shows that important work has been done in determining the boundaries of the forest reserve to be situated north and west of the Fraser River in the B. C. Coast district of the Dominion railway belt—a territory approximately forty miles wide and 130 miles long. It is, of course, not possible to give an accurate estimate of the timber in the Coast district, as only a comparatively small portion has so far been examined. However, approximately 25,000,000,000 to 30,000,000,000 board feet would be a fairly conservative estimate. Of this, 15,000,000,000 to 20,000,000,000 feet could probably be found in the proposed forest reserve.

It is estimated that the timber in this coast district consists of approximately 65 per cent. Douglas fir, 18 per cent. red cedar, 15 per cent. Western hemlock and 2 per cent. other species.

Canada's Trade with Germany

In the year ending March 31, 1913, Canada imported from Germany goods worth $14,473,833, and she exported to Germany goods to the value of $3,402,394, a total trade with Germany of $17,876,227. With Austria-Hungary Canada carried on a total trade to the value of $1,828,943, of which $1,674,349 consisted of imports and $154,594 of exports. It is thus seen that these countries, especially the former, had obtained a material foothold in the Canadian market which will be lost during the progress of the present war and probably for many years thereafter.

Mr. Stanley Cook, secretary of the Montreal Lumber Association and assistant secretary of the Montreal Board of Trade, is recovering from a serious attack of erysipelas. The illness developed at Sixteen Island Lake (where Mr. Cook has a summer residence), and for some days it was of a dangerous character.

Alderman W. K. Grafftey, head of the Montreal Lumber Company, was among the first "young men between the ages of 18 and 60" to enrol as members of a new regiment being raised in Westmount, P.Q.

Frank H. Harris Married

Frank H. Harris, Toronto.

The accompanying portrait will be recognized by many lumbermen in Ontario because it represents one of the best known men in the trade, Mr. Frank H. Harris, of the Frank H. Harris Lumber Company, Limited, 32 Church Street, Toronto. The reason for the publication of the portrait is one which will be read with interest by all of Mr. Harris' friends, who will be pleased to learn that on September 5th, he was married to Miss Gertrude Louise Park, only daughter of Mr. and Mrs. Andrew Park, of Toronto. The ceremony was performed by the bride's father, Rev. A. Perry Park, who returned from Valcartier for that purpose. After the ceremony, Mr. and Mrs. Park held a reception at their home, and the bride and groom then left on a trip to Buffalo, Detroit and Chicago. On their return they will reside on St. Clair Avenue East, Toronto.

Mr. Harris started in the lumber business at Toronto for himself and four years later the present company was formed, the president of which is Mr. W. H. Harris father of Mr. Frank H. Harris.

Retired from Active Service

R. H. H. Alexander, the veteran assistant manager of the B. C., M. T. & T. Co., Vancouver, B.C., has laid down the active management of the company with which he has been so closely identified for many years, and will now act in an advisory capacity. Mr. Alexander is one of the sturdy lumber pioneers of the Pacific Coast, and has a host of friends. Arthur J. Hendry, who has accepted the position as assistant manager, has resumed the duties heretofore borne by Mr. Alexander. Mr. Hendry has been actively connected with the business for many years and is eminently qualified for his new position. P. Hamber is the manager of the company. He is a son-in-law of President John Hendry. Mr. Alexander has recently returned from a visit to England.

New British Columbia Export Mill

The new mill of the Newcastle Lumber Mills, Limited, at Nanoose Bay, B.C., has a capacity of 125,000 feet in ten hours and is running steadily. It is modern and completely equipped. A planing mill, operated in connection with the sawmill, is electrically driven, each machine being equipped with an individual motor. The plant is located on the Esquimalt & Nanaimo Railroad, fifteen miles north of Nanaimo. Manager A. E. McIntosh announces that a wharf will be constructed at once, with facilities to accommodate the largest vessels. By reason of its advantageous location the company will engage extensively in the export trade. Line yards have been established at Nanaimo, Parksville, Qualicum and Victoria, all on Vancouver Island. The company also has connections with the Canadian prairie and Atlantic seaboard trade. The company is a subsidiary concern of the Merchants Trust & Trading Company, of Victoria, B.C. They own about 75,000 acres of timber and agricultural lands in the vicinity of Nanoose Bay, The timber is of excellent quality, being nearly all fir, with a small percentage of cedar. The company is making special efforts to attract farmers, the land being prepared for settlement as soon as the timber is removed. A large proportion of the settlers are of the well-to-do class from England. Manager McIntosh is an experienced lumberman, having held positions of importance with Washington companies. For three years prior to his taking the management of the Newcastle Lumber Mills, Limited, Mr. McIntosh was general manager of the Index Galena Lumber Company, of Index, Wash.

S. T. Easterling, who with E. C. Sessions operated the Short Leaf Lumber Company of Newton, Miss., has disposed of his interest in the company to Mr. Sessions and departed for Montreal, P.Q., where he will be associated with the Prendegast Lumber Company. Mr. Easterling is well known in Mississippi lumber circles and has a host of friends who will be glad to hear of his success in Canada.

Government Prices of Stumpage in B.C.

A Concise and Interesting Outline of the Method Recently Adopted to Determine Values—Address Before Pacific Logging Congress

By H. R. MacMillan, Chief Forester for B. C.

THE business man has usually no great difficulty in knowing what price to put upon whatever he has for sale, for he can be guided to a decision by the phices asked by other men for more or less similar articles. A government, however. which is called upon to fix the price of timber on a total area of ten million acres scattered in square mile units throughout a province of twenty-five times that size, is in a very different position; especially when it has already transferred this immense property to a partnership composed of itself and nine hundred or a thousand lumbermen and investors, and six years have passed without a definite sale price for the transferred timber having been established. A government holding of this magnitude cannot be compared with current offerings of stumpage by private holders, and, as the Province of British Columbia realized in 1913, the task of deciding what the proper average charge should be for all this timber was one of the greatest difficulty. On the one hand, the Government was trustee of this great property, and in the interest of the public revenue was bound to get a thoroughly fair price for what it sold. So important was this revenue that, for many years, it provided every penny which was spent on the building and upkeep of roads, bridges and wharves throughout the province. On the other hand, it was the government's business to help develop the most important industry in British Columbia; the one employing the most labor, involving the most capital, and creating the most wealth by its annual output—I mean the lumbering industry. Financial conditions in the west had been changing rapidly; the building up of logging and saw-milling enterprises on a large scale required more complicated financing than in years gone by; and a system of holding options upon government timber from year to year which had worked very well in the old days was no longer suited to these modern conditions. To obtain working capital, the holders of licenses to cut Crown timber needed something more than the fixing of the government's stumpage price for the current year, which was all the security they had. They needed stability of tenure, so that shareholders and bondholders would be able to invest their money in the lumbering business with a full knowledge of what stumpage would cost them in years to come.

In February, 1913, the Hon. W. H. Ross brought the matter before the Legilsature. Committees representing the Coast and Mountain Lumbermens' Associations and other holders of timber licenses were appointed; and a very careful investigation of the whole subject was carried on during the whole of last year. There were two separate questions to be decided. The first was a comparatively easy one, namely, the fixing of a price for government timber which should be reasonable at the present time and for a few years hence. The second was most difficult since it meant the invention of some method which would give stability to the lumber industry by fixing stumpage prices for thirty or forty years ahead without depriving the people of the province of their fair share in the future increase in value that must certainly be expected in the two hundred billion feet of merchantable timber they were sharing with the licensees.

Present Increase

In view of the present depression in the lumber business the investigation showed couclusively that it was unreasonable to make an immediate heavy increase in the average price of government timber, which had remained at 50 cents per thousand feet for so many years. It was decided to increase this figure to 85 cents upon Nos. 1 and 2 Douglas fir, cedar, spruce, pine and cottonwood where the timber was cut west of the Cascades, no change being made in the existing figure of 50 cents for other grades and species. In the southeastern portion of the province a similar increase was effected in a different way. So far the Doyle rule has been in use in that territory. By changing to the B. C. rule an increase for all grades and species of something like 15 cents a thousand was provided for. For the northern interior of the province a rate of 75 cents on the B. C. scale was established. In order to give business conditions time to adjust themselves to these changes, it was provided by the Legislature last winter that they should not become effective until January 1st next.

Future Increases

The question of how to fix stumpage prices for the next thirty or forty years was, as I have said before, the main difficulty. The Government and the licensees were partners in the stumpage value, and it was necessary to define just what share each should claim of the future increase in value—of what usually passes under the name of the unearned increment. One proposal was that the Government should ascertain each year the average cost of production and the average selling price of lumber throughout the province, and as the difference between these two figures was found to increase the Government should take some definite proportion of the increase. In theory this proposal was sound enough, but, as a practical matter, the working out each year of the average cost of production per thousand feet would have meant continual inquisition into the financial standing of every milling company by an enormous staff of forestry officials, in a way that no government could reasonably attempt. On the other hand, the average wholesale selling price of lumber each year could be calculated from confidential returns furnished by each company and checked by government accountants, with comparatively little difficulty or friction. The idea of using the average selling price as a guide to stumpage value was then put forward.

An increase in the selling price of lumber may be offset by increased cost of production; in which case there is no change in stumpage value. Or again, cost of production may remain stationary, and then increase in price represents increase in stumpage. The truth, in any particular, will be somewhere between these two extremes. The selling price of lumber is thus by no means an ideal barometer for stumpage values. On the otherhand, it affords a far sounder basis for future readjustments of stumpage prices than any other method that could be reached by so sharing the increase in lumber price that a portion of it is set against possible increase in manufacturing cost, the remainder being divided among the stumpage owners—who, in the case under consideration are the Government and the licensees. This was the principle finally adopted by the Government of British Columbia. A starting price was agreed upon. Whenever prices should go above that level the Government was to take a definite percentage of the increase, by increasing its stumpage prices. The arrangement was to hold good for forty years.

The Timber Royalty Act was, therefore, passed by the Legislature last winter in accordance with this principle. In view of the fact that an increase was to be made in the existing stumpage of 50 cents at the end of the present year, it was provided that no further increase should be made until the average selling price of lumber had passed the figure of $18. Thereafter the following increases are to be effective:—

Twenty-five per cent. of any increase in the wholesale selling price of lumber above $18.

During the 5-year period 1920-1924 25 per cent. of any increase.
During the 5-year period 1925-1929 30 per cent. of any increase.
During the 5-year period 1930-1934 30 per cent. of any increase.
During the 5-year period 1935-1939 35 per cent. of any increase.
During the 5-year period 1940-1944 35 per cent. of any increase.
During the 5-year period 1945-1949 not to exceed 40 per cent. of any increase.

During the 5-year period 1950-1954 not to exceed 40 per cent. of any increase.

With the settlement of this important question in a manner that protects the public interest, while definite conditions of tenure are afforded to the holders of Crown timber, there has ceased to be any conflict of interest between the lumbering industry and the Government. The deed of partnership in 200 billion feet of merchantable timber has now been drawn between these two. The Government obtains an annual rental of some $2,000,000 until the timber is cut. No matter how long a time may elapse before this takes place—no matter how much conditions may change and stumpage values increase—the public treasury—at the time of cutting—will receive fair prices for the timber used. On their side the lumbermen have definite conditions of tenure upon which to base the financing of their enterprises. Under the schedule I have quoted above they are no longer subject to arbitrary changes either in the carrying charges or in the final payment on their timber. Far more than ever before the Government revenue is bound up with the prosperity of the lumbering industry; and in the dual campaign for the better marketing of British Columbia lumber in foreign countries and for the profitable development of new wood products in which the Provincial Government is now taking an active part, the Government and the lumbermen work together in a common cause. I do not know that any country in the world can show a more satisfactory relation between a government and an industry.

The Red Cedar Lumber Industry in B. C.

As yet red cedar lumber forms but a small percentage of the total lumber cut of British Columbia, the production being confined largely on the coast to a few mills making more or less of a specialty of the cedar business, and in the interior to the mills along the main line of the Canadian Pacific Railway and the Arrow Lake region, or the "wet belt," as it is sometimes called.

On the coast, as the forests on the west coast of Vancouver Island and those north of the Seymour Narrows are opened up, and as the loggers get further back up the deep valleys and higher up the hillsides, the percentage of cedar will likely increase somewhat, though it is probable that the coast cedar will always be more valuable as a shingle timber than a lumber timber. In the interior the construction of the Grand Trunk Pacific and Canadian Northern Pacific Railways will open up certain new areas of cedar, and thus production will be stimulated in that region.

In the interior the production of cedar lumber differs little from that of any other lumber. The timber is not so large as the coast timber, and though running largely to low grade it is much sounder knotted timber than the coast timber, thus giving a much larger percentage of No. 1 common lumber and making it chiefly useful as a yard stock. Lower freight rates to the prairie markets and its light weight when dry enable this timber to be disposed of at profitable prices where it would be impossible to ship other woods of similar grade.

On the coast the production of cedar lumber is a little different matter. Lacking the hardness or strength of Douglas fir and hemlock, it cannot be classed as a structural wood, and the prevalence of loose, rotten knots, heart check, rotten heart, splits and other defects in the bulk of the timber, has rendered it suitable for little else than shingles, where clear blocks can be cut out between the knots. To attempt to manufacture the bulk of the coast cedar into lumber, with the heavy freight to the nearest market and the extremely low grade of the bulk of the product, would be only to court disaster. It is therefore practically only the butt or clear logs that can be converted into lumber profitably, and this is done largely in what are known as "combination" mills, that is, combined lumber and shingle mills, where the clear logs are cut into lumber and the knotty hearts of the clear logs and the rougher logs are cut into shingles. At present there are six combination sawmills on the coast, though owing to unsatisfactory market conditions and the difficulty of obtaining a supply of the proper quality of logs three of these mills have never operated. A fourth mill is closed down at present, so that there are really only two combination mills in operation. In addition there is one sawmill cutting cedar exclusively and a number of other sawmills which specialize more or less in cedar.

To handle the enormous butt logs, many of them from six to ten feet in diameter, requires the heaviest and most modern equipment. Most cedar mills are short log mills, that is, built to take logs up to 24 feet in length only, as it has been found advisable, in order to obtain the maximum amount of clear in the logs, to saw them in short lengths. As much of the lumber as possible is also sawn vertical grain in a further endeavor to avoid the knots as far as possible. Even with the most modern machinery the exceptionally faulty nature of the timber, the large amount of waste, the fact that it must all be cut into inch lumber, and cut for quality, not quantity, all make for small outputs and high operating costs. Owing to unfavorable climatic conditions on the coast very little of the clear lumber is air-dried, all the cedar mills having extensive dry kiln facilities by which the lumber is thoroughly dried for from one to two weeks. Lastly comes the planing mill, where the lumber is still further reduced in size—much of it to half inch—and finally finished before shipment. The whole operation is therefore much more complicated than sawmilling in the east, and indeed probably more than twice as much labor is expended per thousand in the manufacture of cedar lumber as in fir on the coast.

Cedar Ideal for Outside Use

Owing to its weather resisting qualities and its ability to take paint well, red cedar makes the ideal wood for all outside use, wherever a smooth surface and long life are required. Its soft grain allows it to be nailed without splitting or checking, and it is not liable to shrink, warp or twist. As a siding wood it stands pre-eminent, and this applies to it whether in the form of bevel, angle, rustic, or novelty sidings, drop siding or bungalow siding. It is also largely used for outside finish of all kinds, door and window casing and mouldings. In interior trim its soft color and pleasing grain have made it popular for door stock, casing and base, ceiling, partition and panelling. Among its special uses may be mentioned boat lumber, windmill fan stock, water tank stock and moth-proof chests, its strong odor making it particularly suitable for this latter use. The common grades are largely run into shiplap and boards for cheap sheathings. A limited amount of the common is also used locally for culvert timbers, road and sidewalk plank and other similar uses, for which its ability to resist decay even when in contact with damp earth make it especially valuable.

As with the fir mills, the chief market for the cedar mills at the present time is the Canadian Northwest, though quite an important trade is done with Ontario in siding and wide finish. A good deal of bevel siding is also shipped to the United States markets, its light weight allowing it to be shipped even across the continent at low cost. The short length problem is partially solved by the demand for cedar clapboards in the New England states. Practically all the common, on account of its low value and increased weight, is either consumed locally or shipped to the prairie markets.

Little or no export business has been done in cedar other than to the United States, and what little demand there has been was chiefly for special sizes and lengths very difficult to obtain in so faulty a wood as cedar. It is unlikely that much export can be done in cedar in the ordinary sizes, as few countries use the wooden house to the same extent that America does.

The removal of the United States tariff last year will ultimately prove of considerable benefit to the lumber industry as the supply of raw material in Washington becomes exhausted, but at present that market is in so depressed a condition that it offers little encouragement for increasing production. The opening of the Panama Canal will probably mean the increasing of the production of cedar by the opening up of cedar areas at present lying undeveloped through lack of transportation. Much of this lumber will probably be shipped by cargo in the rough to the Atlantic seaboard in competition with the southern cypress, and finished there. Little if any of the present finished product will likely find its way to the east coast by water, as the difference in freight owing to its light weight will be very slight.

No fear need be entertained as to the ultimate future of the business, as with an abundant supply of raw material and good transportation facilities it is only a case of finding a market, and this is, in sight, so that in future the cedar lumber industry of British Columbia will occupy a much more prominent place than in the past.

Some Observations on Twin Band Saws

It is the custom of some saw manufacturers in shipping saws for use on twin band mills to send them in pairs— right and left.

In the filing room it would be well to study saws received for use on twin re-saw machines, particularly machines of the crowding wheel type.

It is not necessary and, indeed, it is not the wisest thing to do to continue running band saws in pairs as they are mated in the first instance. Study the saws. Note their tendency to dish either way. Very often a complete rearrangement of your order of pairing saws will save lots of hammering, and be the means of giving you more efficient saws.

Saw filers who got their training in saw shops, who are sawmakers as well as saw filers, know that in working band saw blades many of them will show more resistance to the hammer on one side of the blade than the other, and that there will be a tendency to take dish on one side, and that it seems to be the disposition of such a blade to return to this condition as often as it is leveled.

There is but one way to successfully meet this annoying condition; that is, to keep the blade dished on the opposite side, then after a time it will yield.

The tendency of band saws to return to this original dish will be noted while rolling with the stretcher.

Very often filers say, "My roll is dishing my saws." While it is possible for the rolls to do so, owing to poor alignment, in nine cases out of ten it is nothing more than the peculiar stubbornness of the blade noted above.

Light gauge saws in use on twin re-saw machines, running overcrowding the wheels develop this dish quite rapidly; hence the advantage of studying them and changing them about, if necessary, to overcome the trouble, thereby getting better all-round results.—J. J. M. in The Simonds Guide.

For the year ended June 30 last, the net profits of the Laurentide Company, Limited, Grand'Mere, P.Q., were $730,774, a decrease of $27,311. The sum of $161,267 was spent on capital account for the enlargement and improvement of the pulp and paper plant. The timber lands of the company are valued at $2,512,057, logs and supplies at $766,903, and merchandise at $344,342. At the annual meeting Mr. G. Chahoon, Jr., vice-president and manager, dealt with the paper situation. Newsprint, he said, was selling at the highest price in his experience. The price was $9 to $10 above that of last year, which gave double the net profits received two years ago. Market conditions were difficult to speculate on, but efforts will be made to renew contracts at better prices than the old ones.

Workmen's Compensation Act Results

Chairman of the Washington Commission Gives Report Upon Three Year's Operations—Good Results Secured

The recent enactment of a workmen's compensation act in the Province of Ontario, in the framing of which the Washington State act was to a large extent used as a guide, makes a report recently presented in connection with the work of the Washington State act of much interest. At the recent logging congress which was held at Bellingham, Wash., an address upon this subject was delivered by Mr. F. L. Daggett, Chairman of the Industrial Insurance Commission of the State of Washington. Mr. Daggett said in part:

"This is an era of intelligent application of the principles of compensation to injured workmen in the various industries of the country, rather than the cold-blooded manner of dealing through casualty insurance or other mediums, because there is a humanitarian side to this question. The injured workman is a man like ourselves. He has his place in the community; he has his obligations, both social and industrial, just as we have—and is entitled to the same consideration that his fellowmen, either employer or otherwise, is entitled to. The day of the workman being considered a part of the machinery of any given enterprise is past, and the employer has found and is finding that even from a purely business standpoint, it is desirable to treat this question from a humanitarian aspect. There was a large social, and to my mind, industrial loss in the former method of treating injured workmen through the medium of casualty insurance. Whenever a workman is deprived of earning power or his family through his death, of support, there is a distinct loss to the community because this lack of earning power or support must be supplemented from the general public and cannot be gotten rid of. It is therefore wise to endeavor to solve this problem through some beneficial agency.

Compensation—Not Insurance

"Workmen's compensation is not insurance and should not be confused with the insurance idea. Insurance means a contract between the insured and the insurer. This may mean that the employer through some insurance agency provides specific indemnity under certain regulations and under certain conditions. These regulations are limited and prescribe limited indemnities, usually well sprinkled with provisions for non-liability. A workmen's compensation act means compensation for accidental injury and loss of earning power upon a monetary basis by the industries through which the injury is sustained, withdrawing the same from the domain of private controversy and from the jurisdiction of the courts.

"On the first of the coming October, the Washington law will have been in force for three years. Being experimental in that it blazed the way for a new method of dealing with injured workmen, it is a compliment to the framers of this law that it has worked out so successfully and that the operation of the act has demonstrated its practicability; and that there is no disposition on the part of any one, employer, employee or administrative buerau, to change the theory of the law. Experience has shown that a few minor changes will be advisable and it is the intent of the Industrial Insurance Commission to recommend some such changes; but there is nothing in the amendments proposed by the commission, that will change the theory of the act.

Theory of Washington Act

"The theory upon which the Washington Workmen's Compensation Act is constructed is that mutual concessions were made by employer and employee. The employer gives up his right to plead defences on the ground of personal negligence, fellow servant fault or assumption of risk upon the part of the workman, and agrees to compensate the injured workman for any accident happening in the course of employment without regard to whose fault it was. On the other hand, the workman in consideration of being compensated for all accidents occurring in the course of employment gives up his right of suit against his employer. Therefore, the result is that every employer in a hazardous occupation as contemplated by the law, is compulsorily under the law, and must contribute to the accident fund and must acord with the provisions of the said act. The injured workman likewise must accept the compensation provided in the act in lieu of any or all other claims that he may have against his employer. The operation of the law means that 100 per cent. of the accidents are compensated, whereas, under the old liability system, there were not more than 5 to 10 per cent. of the injured workmen who received any direct remuneration for accidents incurred, unless by some arrangement with his employer such as hospital and medical attendance, to which the workman usually contributed.

Statistical Experience—34 Months' Operation

Accidents reported	40,828	
Files incomplete	784	
Files complete		40,044
Claims Disposed of		
Final settlements	29,280	
Fatal cases	869	
Total permanent disability	27	
Rejections (for cause)	1,789	
Suspensions (pending receipt of claimant's address, etc.)	1,121	
Suspensions (claims not filed by workmen; trivial cases)	6,478	
		39,564
Claims in process of adjustment	243	
Monthly payments continued 7-31 (disability still existing)	210	
Partial payments continued 7-31 (account of reduced earning power	27	
		40,044

Contribution of Employers

"At the close of business, July 31, 1914, being 34 months' operation, the total amount paid in by the employers of the state is $4,021,-152.37; of this amount $2,251,476.29 has been paid directly to injured workmen, $197,002.47 has been paid in pensions, and a pension reserve set aside to pay pensions already allowed, amounting to $1,-073,576.32. There was a balance on hand in the various class funds of $468,858.99. As nearly as statistics can be obtained the employers of the state, previous to the inception of this law were paying out $1,250,000 per year in casualty insurance. It would be fair to assume that employers of the state who did not carry casualty insurance would have paid at least a half million more, thus making one and three-fourths millions per year that it was costing the liability companies. During the time the law has been in operation, the employers of the state have not paid as much in premiums as they would have paid under the old system. From the same source of statistics, the operation of the Washington act will show that the workmen as a whole have received directly or in pension reserves, more than three times what they would receive under the old system; therefore, I cannot see that there can be any question as to the beneficial qualities of our present system over the former method of dealing with our injured workmen. If the injured workman can receive more than three times the amount he formerly did at no greater cost to the employer and the public receive the benefit of the elimination of personal liability litigation from our courts, there must be a direct benefit to all concerned, namely, the employer, the employee and the public.

Funds

"There seems still to remain an impression on the part of some employers that the accident fund is paying for the administrative expense. There are two separate and distinct funds. The accident fund is recruited by contribution from the employers in each class and out of this fund is paid the compensation to the injured workman for such class. For instance, take class 10 in which logging and milling operations are listed, you are asked to contribute your proportion of the necessary funds to meet the demand for payment of injuries received by workmen engaged in your class only. Coal mining, being a distinct class, does not receive any benefit from your contributions to the accident fund, nor do you receive any benefit from theirs. It is just as distinct and separate as if you were working on entirely different propositions. No part of the accident fund is used for administrative expense. The maintenance or administration fund, is a sum appropriated by the state legislature from general taxation. This is not more than the former expense to the taxpayers for court costs in personal injury litigation and is therefore no additional burden to the taxpayer. It may be interesting to note that the ratio of expense for the first thirty months based upon the amount contributed by the various firms, is 7.57 per cent. This amount will vary a little each month on account of being based on the amount of contributions, these amounts varying according to whether demands are actively coming in or not. But it is continually running at, or under the percentage just quoted. We feel that the taxpayers of the state can be well satisfied with the expense ratio of this department. The department is organized and run upon commercial business principles,

and we believe will compare favorably in its operation as to efficiency and expense with any similar commercial enterprise.

Pension Reserves

"Some of our friends are still a little hazy as to the manner of handling these pension reserves and the cry is still sent up by some of our casualty friends that the pension reserve will accumulate to a point where the cost will be prohobitive, but they fail to take into consideration the system upon which we are working. As soon as a claim for pension accrues, whether for permanent total disability or a dependency pension on account of the death of a workman, an amount is immediately set aside from the current fund based upon the expectancy of the pensioner according to the accepted mortality tables, not to exceed, in any event, the sum of $4,000. In some intsances, this $4,000 will not meet the requirements but there is a provision in the act whereby any surplus on a pension, that is, if a pensioner dies before the amount is exhausted, or a widow remarries, this surplus is returned to the accident fund. Twenty-seven widows have remarried since the beginning of the operation of the law. Again, the law provided that where there is any deficit in the reserve set aside, the additional will be paid out of the current accident fund. These amounts should easily offset each other, so that it will be readily seen that the pensions do not accumulate from year to year in the sense that they are a greater burden from time to time, but the current fund cares for the pension reserves.

Foreign Dependents

"The question has been raised as to whether foreign dependents should receive the same amount as those living in this country. It is argued that the purchasing value of a certain sum of money is nearly double in the foreign lands to what it is here, and also that it takes money out of this country that ought to remain in it. As a counter argument to this, it is stated that if the workman comes to this country and is accepted by the employer upon the same basis as the American workman, that he should be likewise compensated. It is also held that if any difference were made in the treatment of foreign workmen, there might be a tendency to exclude the American as against the foreigner, or the foreign single man. Some states having workmen's compensation acts do make a difference. This is a matter that will undoubtedly be discussed in the next legislature and I am simply suggesting the topic for your consideration.

First Aid, or Medical Attendance

"The present law does not provide any medical or hospital attendance. At the time of the preparation of this address, it would appear extremely probable that the initiated "First Aid Bill" will be found to have enough signatures to entitle it to a place upon the ballot at the coming election in November. Should this law become effective, it will take care of this situation without any action by the state legislature. In the event that it does not, the commission will prepare and recommend, a medical attendance amendment to the present law, together with either a waiting period or a form of participation by the workman in the expense of this medical attendance. It is the judgment of the commission that a reasonable medical attendance under the operation of the law, is not only desirable but necessary. It should be safeguarded thoroughly to see that it is not abused, intentionally or unintentionally.

"Safety First"

"One of the unique and humane phases of workmen's compensation is accident prevention. It has become a well-known fact that it is much better to prevent an accident and retain the earning power of an individual even from a wholly economic standpoint, than to have the accident occur and the loss of earning power ensue. There is no argument at all from the humanitarion side of the question but what accident prevention is a desirable thing and, as has been said, it appeals to us from an economic standpoint."

A despatch from Victoria, B.C., states that the British Columbia Government is considering the confiscation of $9,000,000 worth of timber limits owned by the firm of Alvo von Alvensleben, a large trust company backed chiefly by some of the largest banking houses in Germany. This firm took over control of the Vancouver Timber & Trading Company about two years ago and has other large financial and industrial interests throughout the province. It is said that one of its chief clients is the German Emperor.

Robert Cox & Company, Liverpool, England, in a recent lumber trade circular say: "In handing you particulars of pine goods now on the quay we strongly recommend you to replenish your stock at the present low rate of freight and before a revision of prices is necessary. High rates are being quoted for late shipments, and owing to the accumulation of food stuffs only a limited amount of space will be available for lumber. With the exception of red pine goods, our list prices remain unaltered until further notice."

The Bonus System in Logging Operations

By H. Syverson

The gradual change witnessed in the methods of logging on the Coast in the last twenty-five years has been interesting because of the marked improvements in the manner of handling the timber. Where, in the early days, oxen and horses were toiling laboriously with a string of logs on the skid road, we now behold the latest types of logging engines handling the largest logs with ease. Where, in the past, a 40-acre tract usually constituted a summer's logging, this can now be disposed of in a few days.

This gradual evolution in the logging industry, however, has been confined largely to the machinery and mechanical lines, while the condition of the men performing the labor in the woods has remained practically unchanged. The wages are higher, but this is partly offset by the present high cost of living. Men still carry their blankets when seeking employment and are usually assigned to a bunkhouse that can hardly be compared with a Dutch kitchen; with no accommodations for men to keep clean, and often infested by a horde of walking delegates, which will tackle the most muscular logger without fear or favor. The men do not get the rest and comfort needed, and the result is a feeling of resentment against their employer. They "loaf on the job" when they can, and usually only stay a short while.

In some of the prominent camps of Oregon and Washington this condition has been improved upon by furnishing iron bunks and a flunkey to keep the camp houses clean. Aside from pride of a well kept camp, the employer realizes that rest and some comfort when off duty are essential to good labor, and this creates confidence in him and a feeling that he has their interest at heart.

But the most important step towards gaining and retaining an efficient and intelligent crew, is the percentage, bonus or profit sharing system. This is not theory or experiment but an actual fact. It has been tried and established by a few camps in the West and by many factories and large concerns in the east and has proven a success, with gratifying results to all parties concerned.

To the man of self interest, this may seem an undesirable remedy, but on trial he soon will be convinced that the profit sharing system will amply repay him in the confidence, contentment and good will of his men, as well as in hard cash resulting from the increased efficiency of his crew.

Labor troubles would be unknown and the employer would have the satisfaction of having men that would have his interest at heart and knowing that the work would go on as well in his absence as in his presence.

Working under the bonus system now in use by the Portland Lumber Company, every man uses his best effort towards getting out logs and, so far as known, their camps hold the record for yearly output. The foreman is informed if any dilatory tactics are in vogue among the crew, as the men feel it is to their interest to have the best men at the different jobs, because of increased earnings. The bonus system has the effect of creating harmony among the men themselves and developing the spirit of assisting one another in order to facilitate the work. It creates a sense of security among the men and with it a desire to save their money and eventually to own homes of their own.

The Hill Logging Company, at Bunker, Wash., will soon adopt a system of this kind. The company have purchased forty acres of tillable land which will be cut up in one-half and one-acre tracts and sold at a reasonable price upon small payments. Lumber for houses can be obtained on the same basis and, if for any reason a man wishes to discontinue his payments, his money will be returned to him, with the exception of a small interest charge. Men are invited to express their ideas as to improvements in the work and often their ideas are of value.

In the above, the writer speaks of "Intelligent Crew." A stupid man is not profitable because his mistakes may cause more loss than his labor amounts to. An ignorant man is suspicious that whatever is proposed on his behalf, may be to his disadvantage. Men of this kind are not worth while.

The saying that men with "strong back and weak mind" are needed in the woods is a fallacy in these days when logging is approaching science. Men of intelligence and brains are needed in the woods as well as in the office to perform the work to best advantage and to avoid accidents.

The tendency of the times seems to indicate that we will see great changes along this line and that the profit-sharing system, when adopted, will prove of universal satisfaction.

Enquiry for Telegraph Poles

A firm on the list of contractors to the British post office for supplies of telegraph and telephone poles report their desire to obtain quotations for large quantities of these posts from Canada. In the past these poles have been drawn entirely from Scandinavia and the Baltic, which are, of course, advantageously situated for freights.

New Lumber Merchandising Methods

Can Trade Mark and Official Standards be Made to Promote a Better Trade Situation?

By A. W. Cooper*

In the last few years countless papers have been read and countless articles written pointing out that the lumber manufacturer was not a good merchant. Why he is so far behind other industries in this respect is largely a matter of history. Improvements probably only come when they are forced by necessity and the necessity of being a good merchant did not exist for the lumber manufacturer of twenty-five years ago. In fact this period has witnessed a remarkable change in the merchandising of commodities whether it be boots or shoes, safety razors, cement or sugar. This change has all come about as a part of the vast industrial expansion produced by the growth of the country and increased means of transportation and communication between its various parts. Today the lumber manufacturer of the country is beginning to wake up to the fact that the merchandising of his product is subject to the same economic laws as that of any other commodity and that he may apply the principles that have proved so successful in marketing generally.

It seems to me that to sum it up briefly the new thought in the lumber world is "Reaching the consumer." Now by this I do not mean selling direct to the consumer, which of course is not practical, but I do mean recognizing his existence and recognizing also the fact that the consumer is, in the last analysis, the market. I think it is no exaggeration to say that the lumber manufacturer generally, has entirely lost sight of the consumer. He has allowed the retailer to build up a wall between himself and the man who finally uses his goods and unconsciously he has come to regard the dealer as the market.

The dealer in other words, has become the end instead of the means and a barrier between producer and consumer rather than a medium of communication between the two. This is not blaming the dealer as it is the manufacturer who has really been to blame. The dealer who has grown up under this condition has finally come to believe he has certain inalienable rights, one of which is selling the consumer any wood he sees fit and he naturally sees fit to sell him the one from which he can derive the greatest profit. Not only has this opened the door for substitutes for lumber, but it has made it possible to play the majority of woods against each other to such an extent that the natural talking point and advantages of each individual wood have been lost sight of. Certainly every commercial wood of wide distribution in this country has its proper uses in the general scheme of things, but what has the manufacturer ever done to see that the right wood was used in the right place or what has he ever done to study the virtues or failings of the wood which he himself manufactures or to educate the consumer along these lines? He seems to feel that his responsibility ends when the lumber is shoved into the car door and if the dealer to whom he ships it doesn't kick about the grade, all is well. He has become the victim, however, of his own indifference and allows the wood that he is interested in to become the plaything of the man who has nothing at stake. We see this in the countless misrepresentations of our own woods that are made by jobbers and dealers the country over.

Misrepresentation Injures Wood

Now the great feature of the Forest Products Exposition and to some extent of the last National Association meeting was that they brought the consumer and the manufacturer face to face, so to speak, and drove home the lesson that every time the wrong wood is used for a given purpose, all woods suffer,—that every time our woods are misrepresented we all suffer,—that every time the names of our woods are distorted and twisted to the confusion of the man who might use them, we are losing ground. I might instance as an example of this laxness on the part of the manufacturers the case of the southern pine mills. The south produces, as you know, three pines,—the long leaf, short leaf and the loblolly or old field pine. The long leaf is the strongest and heaviest wood of the three and is the one that has made southern yellow pine so valuable for heavy timbers and construction purposes. The strength of this class of timber has repeatedly been tested and actual figures showing the stresses and strains it will bear are available to all architects and engineers and are naturally used by them whenever they are planning a structure. The manufacturer, however, has ignored this fact and seen fit to ship the other two pines more or less mixed with the long leaf and oftentimes sold them all for long leaf. The natural result of this is that the architect and engineer has become fearful of the product that is often sold as long leaf pine and the whole proposition has injured southern pine generally.

Our own woods are being hawked about in the eastern markets under such a variety of names that the man who might buy them is utterly at sea and solves the puzzle by refraining from buying any of them.

Granting that the conditions that I have outlined exist, the next question is, what are we going to do about it? One of the first attempts to remedy the present defects in merchandizing was the cypress advertising campaign. This recognized for the first time in a broad way, that the consumer was the market but even the cypress people when they went into it, did not realize half what they do now. Their advertising has not only advertised cypress, but has taught the manufacturer of it, the possibilities of his wood.

Another example of the attempt to solve the problem is the advertising of the coast fir people. Now in a general way, I think this advertising campaign was undertaken because advertising is the method generally pursued to educate the public and to market any other wares, but I doubt very much if many manufacturers who spent their money for the advertising knew much about all of its possible phases. I know that some of them were not very well prepared to advertise, as they did not know enough about the real qualities of their own wood. Furthermore, in all the advertising, so far as I know, there has been no consistent effort to protect the consumer and by so protecting him, protect the good name of the wood advertised.

Anybody can manufacture fir, and while the good effects of the advertising last, can profit by it, and unload mismanufactured, poorly graded or unseasoned lumber to the ultimate detriment of all fir. This leads me to what I believe is the proper solution for any district, particularly a district no larger than our own.

Adopt Trade Mark

Briefly, my suggestion would be to start a broad advertising campaign along the lines pursued by the coast and cypress people and at the same time spend some money and effort in gaining a proper knowledge of the uses, good qualities and defects of our own woods.

Secondly, have the association as an association own a registered trade mark that could readily be stamped on each piece of lumber we ship and then advertise not only the wood but the trade mark.

The use of the trade mark would be open to all members, but to see that its integrity was maintained the association could keep a man at each mill in its membership, the man to be in the employ of the association and to have the right to say that the trade mark should not be used on any given shipment. The reason for this would be obvious. If a man wants to ship green stock because he has got an order and has not got any dry stock to fill it with, all well and good,—let him ship it, but not with the trade mark on it, because if he did it would injure the reputation of the trade mark just that much when the man who used the stock found that it shrunk badly and perhaps that it caused him serious loss. Also the same is true of grades and mill work. If a mill isn't going to grade uniformly and manufacture its stock properly that is its privilege, but it should not be allowed to use the trade mark. In other words, this is a provision for protecting the integrity of the trade mark. It would also be necessary to have a slightly different make up for the trade mark on western pine and white pine, probably including the name of each, but otherwise being the same. We could then consistently get behind the trade mark and boost it in every way possible and wherever the Inland Empire woods went and made good, the Inland Empire mills would reap the benefit and we would be, at the same time, protecting the interests of the consumer, and making our advertising conform with the actual merits of our woods by avoiding misrepresentation and exaggeration. I believe in a very few years we could secure such a wide solid market for our product that most of our troubles would be ended.

Producer Should be Proud of His Product

This may seem like a rather high flown theory to some, but, gentlemen, I firmly believe that the day is not far distant when woods, the producers of which are not ashamed of them will carry a trade mark just as much as any other class of manufactured product.

What I would like to see is the Inland Empire leading in this field. Trade marked goods are not a novelty. They have been tested out and found to be the best means of protecting the interests of

* Secretary Western Pine Manufacturers' Association.

manufacturer and consumer alike. If anyone will show me a good reason why the same principle cannot be applied to lumber I would like to know.

I foresee that a good many of you will think that perhaps this might be done as individuals but as a district it is not feasible. Let me say right here that as individuals you never would have any widespread standing with the consumer even if you could afford to reach him. You will continue as individuals to the dealer naturally, but with the consumer your trade mark can only be Idaho White Pine and Western Soft Pine from the Inland Empire and not Potlatch White Pine or Grande Rounde Western Pine. I know some of you think you have a better quality of one wood or the other than the other manufacturers in this territory. Perhaps you have, but to a large extent the general inequalities of the lumber are evened up by our grades and for one man who prefers the product of some one individual mill, a dozen others can be found who would prefer to get it from some other mill.

Maintain Individuality of the Mills

Furthermore under the plan that I suggest no mill need entirely lose its individuality. All it is interested in is in seeing that all the other mills who use the same trade-mark with it, grade, manufacture and season their lumber rightly.

Now gentlemen, in conclusion let me say that if the Forest Products Exposition taught anything it certainly should teach us that we have two woods that we can be proud of in our Idaho White Pine and our Western Soft Pine, and that we need not be afraid to inaugurate an advertising campaign to exploit their merits to the consumer nor to put a trade-mark on them that would indicate where they were manufactured. And further, if we are going to hold our own with other woods and if we are going to do our share toward seeing that all wood holds its own against the substitutes we have got to get into the game of merchandizing along modern lines. Every other industry of importance does this to-day and the extent to which some of them go in educating the consumer and in helping the dealer to educate the consumer, to sell their product is amazing. It is certainly up to lumber to join the procession.

Hoo-Hoo Annual Held at Winnipeg

Large Attendance at Twenty-third Meeting—Lumber Trades Benevolent Association to be Formed

The twenty-third annual meeting of the Concatenated Order of Hoo-Hoo was held at Winnipeg, Man., from September 8th to 11th, and was, as everyone expected, a remarkable success. The attendance was very large and the interest was exceptionally keen.

The address of the Snark, Mr. John H. Kirby, of Houston, Texas, who was unfortunately prevented from being present, by a meeting of the State Legislature, outlined the work of the year and the progress which has made during the past year. Referring to the lumber trade, Snark Kirby said: "The conditions existing in the business world, especially in the lumber and allied industries, have not been all that we could desire during the past year and to these conditions more than to anything else is due the apparent lack of interest and enthusiasm of our members. I feel sure that improved business conditions will show an increased interest and enthusiasm for Hoo-Hoo. Our reports will show a large number of Concatenations held and that we have initiated many members this year. Had business conditions been even normal our success would have been greater. It is, however, very gratifying to report that during the current year many of our old members, who from one cause or another, have permitted their enthusiasm and interest to lapse have reinstated their membership and are now working with us to make our Order the success we all desire it to be."

The address also drew attention to the fact that advance steps had been taken toward the formation of "The American Lumber Trades' Benevolent Association" along the lines suggested by Mr. John C. Spry, of Chicago.

Referring to the Death Emergency Fund, Snark Kirby stated that it had continued its beneficent work during the year and only two calls had been issued. It had been of great value in uniting the order, and had carried into many homes encouragement and comfort in the hour of sorrow and need. He asked everybody's co-operation in this fund.

The Imminent Distress Fund was also referred to briefly. This fund is entirely separate from the Death Emergency Fund, and helps to relieve the temporary necessities of Hoo-Hoo members who may need brotherly assistance. A vast amount of aid had been extended by this fund in the past.

The Scrivenoter's Report

The Scrivenoter in his annual report stated that the outlook for the future success of Hoo-Hoo was very bright, and that all that was necessary to insure a splendid success was that each member of the order should take a little more active interest in its work, and give to the Supreme Nine, and to the Vicegerent Snarks their loyal and hearty support. The Scrivenoter's report included details of the operation of the Imminent Distress Fund, Death Emergency Fund, the Special Hoo-Hoo Relief Fund, and reports upon concatenations, the work in the various vicegerencies, the work in the various jurisdictions, an analysis of work and membership according to States, and much other information of value to Hoo-Hoo.

A number of interesting suggestions and recommendations were also included in the Scrivenoter's report. Among these was a repetition of his recommendation made at the Twentieth Annual Meeting to the effect that the amount of dues should be increased from $1.65 per year to $2.00 per year, the difference to be set aside in a separate fund for some special purpose, such as the establishment of a Chair of Forestry in some college, or some other undertaking which might meet with the approval of the members.

In referring to the Imminent Distress Fund, the Scrivenoter said: "I find that the purpose of this fund is not thoroughly understood and appreciated by our members generally. This fund is one of the greatest features of our Order and is worthy of the support of every member. This is a voluntary fund and no member is required to contribute thereto, but I believe that if the good that can be accomplished through this fund is thoroughly understood, a large number of our members would be glad to contribute their share to this worthy fund. Give this fund your careful thought and discuss it freely and decide whether or not we shall continue this work. I recommend that it be continued and that a call be issued each year around Christmas. This fund is kept separate from other funds, and list of contributors should be published and a complete record kept by the Scrivenoter of all receipts and disbursements, but names of no one receiving assistance should be published. Information, however, as to whom assistance has been given should be furnished by the Scrivenoter on request of any member."

The Scrivenoter expressed his appreciation of the extensive publicity given to the order and its members by the lumber and trade papers, and stated that members should do all in their power to advance the interests of the lumber and trade papers, and give evidence of their appreciation of this assistance. "We should subscribe for, advertise in, and in every way possible, advance the interests of our lumber and trade papers, especially those papers which have given Hoo-Hoo the attention and support it deserves as a lumber organization" said the report.

American Lumber Trades' Benevolent Association

One of the most interesting developments of the Twenty-third Annual Meeting of the Concatenated Order of Hoo-Hoo, recently held at Winnipeg, was the announcement of the appointing of a committee to organize "The American Lumber Trades' Benevolent Association." The committee is one of the strongest ever selected for anything in connection with the lumber industry, and consists of Robert H. Downman, New Orleans, La.; William D. Gill, Jr., Baltimore, Md.; Everett G. Griggs, Tacoma, Wash.; John H. Kirby, Houston, Texas; John C. Spry, Chicago, Ill., John H. Himmelberger, Cape Girardeau, Mo.; Julius Seidel, St. Louis, Mo.; George H. Grayson, Graysonia, Ark.; and Thomas N. Nelson, Indianapolis, Ind

A preliminary meeting of this committee will be held in Chicago on October 9th. This is the largest and most important proposition ever inaugurated by the Concatenated Order of Hoo-Hoo, and it deserves the hearty co-operation of everyone engaged in the lumber industry who has the interest of his fellow men at heart. A similar association has been in existence in Great Britain for many years and has done remarkably effective work. It is the intention to incorporate The American Lumber Trades' Benevolent Association as a separate organization to be conducted entirely free from any other organization. The Concatenated Order of Hoo-Hoo simply stands as godfather to the new movement, and will do all it can to assist in its development of the splendid ideas involved in the formation of the Association.

During the year ended June 30 last, the Province of Quebec received the sum of $1,777,220 on account of lands and forests, while the disbursements of the department amounted to $413,064.

An Interesting Shipment of Pine to England

Mr. Robert Vestal, of the Atlantic Lumber Company, Manning Chambers, Toronto, reported recently that on August 24 he booked with Mr. Pepal, foreign freight agent of the Grand Trunk Railway Company, one car of pine lumber from Waubaushene to Liverpool. Space for this shipment was arranged on the White Star boat leaving Boston on Saturday, September 8th. The car was to be loaded and go forward at once. Mr. Vestal in reporting this transaction said that it would probably be of interest, as he thought it possible that it was the first shipment of pine from Ontario to the Old Country since the war started.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

For Sale-Lumber

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale-Machinery

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

WOODWORKING MACHINERY FOR SALE: 2 10-in. four-side moulders; 3 26-in. revolving bed, double surface planers; 3 20-in. Ideal pony planers; 2 Ideal variety saw tables; 1 40-in. MacGregor-Gourlay pedestal band-saw; 1 32-in. disk sander with boring attachment; 1 Egan sash and door tenoner with cut-off attachment; 1 36-in. three saw edger; 1 Dougherty shingle machine; 1 Waterous heavy lath mill. H. W. Petrie, Limited, Toronto. 18

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cent s

Position as Band Saw Filer wanted in mill or factory where there are band resaws. A1 references. Box 71, Canada Lumberman, Toronto. 18

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED a competent man to look after bush operations. Apply, F. W. Brennen & Company, Hamilton, Ont. 18-21

WANTED a partner who will manufacture pulp from logs delivered at a mill site on a deep water harbor in Newfoundland. For further particulars apply to F. W. Brennen & Company, Hamilton, Canada. 18

Business Chances

Retail lumber business for sale, a going concern, prospects good, splendid chance for live man. Apply Geo. W. Mortimer, Niagara Falls, Ont. 18-20

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Tenders for Fallen and Burnt Timber

Tenders will be received by the undersigned up to and inclusive of the 15th day of September, 1914, for the burnt and fallen timber on Berths 2 and 4, Township of Nipissing.

Also tenders will be received for Berths 2 and 4, Twp. Nipissing and Berth 4, Twp. Gurd.

The highest or any tender not necessarily accepted. For particulars address

ALEX. BLANCHARD,
Box 265 North Bay, Ont.
15-18

Sale of Pulp Timber

Sealed tenders will be received by the Minister of Lands at Victoria, B.C., not later than noon on the 30th day of November, 1914, for the purchase of nine (9) pulp licenses, situated on the Coast of British Columbia, and estimated to contain the following:—

Hemlock	87,301,000 ft. B.M.
Balsam Fir	44,444,000 ft. B.M.
Spruce	43,244,000 ft. B.M.
Cedar	27,779,000 ft. B.M.
Douglas Fir	2,779,000 ft. B.M.
Total	205,547,000 ft. B.M.

This timber is within ten miles of salt water and is tributary to Vancouver.

Thirty (30) years will be allowed for the removal of the timber.

For full particulars and maps address H. R. MacMillan, Chief Forester, Victoria, B.C. 17-20

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Miscellaneous

Portable Mill and Complete Camp Outfit For Sale

50 H. P. engine and locomotive boiler mounted on skids, only used three months. 54-in. circular saw mill, three saw edger, cut-off saw, shingle mill, belts, shafting, pulleys, etc. Also camp outfit, blankets, sleighs, waggons, chains, etc. Will sell right. Terms arranged or will take lumber in part payment.

C. H. ROGERS,
Care Peterborough Canoe Company,
18-21 Peterborough, Ont.

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

U. S. Production in 1913

"A year of overproduction" is the manner in which the preliminary report of the government on the lumber cut of the United States for 1913 characterizes the situation. Although the cut showed a reduction of about three quarters of a billion feet under 1912, considerable increases were made in the Mississippi Valley states and on the Pacific Coast. The cut of over four and a half billion feet for Washington alone is the greatest ever reported for any state.

It is stated that in 1913 over 8,000 less sawmills reported than in the previous year, but as many of this number had either cut out entirely or had very small capacity, it was not believed that the total of the cut reported would have been materially affected. The report goes into detail as to market conditions more freely than has been usual, saying that for the first three months of the year trade in all lines was excellent. Slackness prevailed for the remainder of the year, and the enforced curtailment, especially in yellow pine and Douglas fir, is given as the only reason why the production for the year did not exceed that of 1912.

The total production of all lumber is reported as 38,387,009,000 feet reported from 21,394 mills. Of this amount cut 30,302,549,000 board feet were softwoods. As usual yellow pine leads all the other woods in point of production, with Douglas fir second, oak third, white pine fourth and hemlock fifth.

As stated before, Washington leads all other states in lumber production, with Louisiana second, Mississippi third, Oregon fourth and Texas fifth.

The Utilization of Waste

At many mills the timber is so poor and the waste so great that the disposal of refuse matter is a serious problem. When, however, a part of the waste is utilized in the manufacture of some profitable by-product, and when a dry kiln is installed, which calls for additional boiler power and nearly doubles the amount of fuel consumed, the problem is reversed and the mill refuse is not sufficient to supply the furnace. The usual practice is to buy an occasional car of low-grade coal, there being a prejudice against attempting to utilize tree tops or other refuse from the logging camps, the custom established by our grandfathers being to burn such stuff in the clearings. However, anyone who wishes to work on a modern plan will be interested in one adopted by J. F. Mahoney, of New Orleans.

Mr. Mahoney says: "Wood fuel is scattered over the entire belt alongside any of the logging tracks. To make this available it is necessary to send out crews with teams and tools to gather it up and stack it along the track, or do this work by contract

"To overcome all difficulties we devised a machine consisting of a boiler, small hoisting engine, drag saw and splitter, all mounted on a flat car 12 x 40 feet. The cull logs are then loaded on cars and brought alongside and cut and split into 2-foot lengths. This machine is located at the concentration point, and all the unpleasant features of wood fuel are eliminated. The attractive elements are a constant and certain supply of fuel where needed, at a low, uniform cost.

"The operation involves seven men on the machine and five

stackers and splitters on the ground, all common labor, which in our country is about $1.25 per day. This machine and crew will turn out about 40 cords per day, and, after the cost of skidding and loading is added, the cost is well below $1.00 per cord. Stumpage is not considered, because if not utilized in this way it is allowed to go to waste.

Importance of Strong Bench Vises

The importance of providing bench vises heavy enough for the work to be done, thereby obviating loss of effect because of work being inadequately supported, was forcibly brought out by an incident occurring recently. A great deal of case-hardening of small parts is done in this shop. The inspector customarily tests the work on an old vise by holding one of the pieces of the lot in the vise and striking it with a hammer in order to observe the depth of case. He recently used a much larger and heavier vise when testing a lot of case-hardened parts, and did not immediately consider the effect of the larger and heavier vise. He noticed that the piece struck by the hammer snapped off very easily, and for the time being assumed that the pieces were case-hardened to a depth that made them brittle, but as the depth of case appeared to be normal he tried another piece with the same result. Then the thought occurred to him to employ the same conditions as formerly, and taking one to the old vise he found that it broke with the customary number of blows.

This little incident indicates again the well-known truth that a given blow has the greatest effect on work that is massive or massively supported. This holds true no matter what the work is —chipping, filing, etc. Workmen too often are inclined to think that a vise is a vise, overlooking the fact that weight and rigidity of vises are an extremely important factor in efficient bench work. Of course, the vise must not be too heavy and too cumbersome for light work, but in all cases it should be chosen with due regard to weight and strength as compared with the work to be done.

WASTE ELIMINATION
IN LOGGING OPERATIONS
My reports show where the waste is, and how it may be eliminated.
D. E. LAUDERBURN, Forest Engineer
1 Madison Ave NEW YORK, N.Y.

CANADIAN OFFICE & SCHOOL FURNITURE
LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS.
OFFICE, SCHOOL, CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

Timber Cruises
Forest Surveys
Water Powers, Storage, Logging and Lumbering Contracts, Reports for Financial Houses and Lumber Concerns.
R. O. SWEEZEY
164 St. James Street, MONTREAL

Cleans a building of Rats and Mice in short time, keeps it cleaned, for it is always ready for use. Made of galvanized iron, can't get out of order, lasts for years. Large number can be caught daily. Go to Catcher mornings, remove device inside, which only takes few seconds, take out dead rats and mice, replace device, it is ready for another catch. Small piece cheese is used, doing away with poisons. Catcher is 18 inches high, 10 inches diameter. When rats pass device they die, no marks left on them. Catcher is always clean. One of these Catchers set in a livery stable in Scranton, Pa., caught over 100 rats in a month. One sent prepaid to any place in Canada or United States upon receipt of $3. Catcher, 8 in. high, for mice only, prepaid $1. On account of shipping charges being prepaid, remittance is requested with order.
H. D. SWARTS,
Inventor and Manufacturer, Scranton, Pa.

Wholesale Lumber **Car and Cargo Shipments**
JOHN M. DIVER
DETROIT, MICH.
"Everything in Lumber"
Large Stocks of Sized or Rough Hemlock and Yellow Pine
Peeled Cedar Fence Posts 5 in. and up, 8 ft., carried in stock at Detroit. Immediate Shipment.
Write for prices
Timber for R. R. Construction and Commercial Purposes, a Specialty.
OFFICE:—413 Hammond Bldg. Phone Cadillac 2275

A Very Useful Machine
Is this new **Defiance Double Band Saw.** Its wheels are 36 in. in diameter by 2½ in. face, the lower wheels are of the solid web type and all four wheels are covered with guards.

The machine is furnished with a sweep attachment for sawing cants and segments for steering wheels, wood pulleys, etc., or it can be used as a single band saw if desired.

For further particulars and price write to

No. 309 Double Band Sawing Machine.

The Defiance Machine Works
Defiance, Ohio, U. S. A.

Slow Speed, Low Power
Dust and Shavings Collecting Systems
New Systems Designed to fit your present and future requirements.
Old Systems overhauled and corrected. Trained expert mechanics.
Grain Elevators. Wood Working Plants.
Long Distance Blows a Specialty.
The Invincible Blow Pipe Company
CHICAGO, ILL. ***"We Know How"*** **TORONTO, ONT.**

Review of Current Trade Conditions

Ontario

It is practically impossible to report anything in the way of developments in the lumber trade in Ontario during the past fortnight. One might visit any number of wholesalers and invariably find the same report, viz.: that trade is very quiet and prices are unchanged. In spite of the fact that there is little trade in progress, comparatively speaking, there is unquestionably a fair volume of lumber changing hands, and the firms which were first to realize this fact after the opening of the war, and to regulate their business accordingly, now find that they are receiving sufficient orders to keep them going along comfortably. There are, however, other firms which report that their trade has practically come to a standstill. It would be useless to specify any particular lines, as either active or quiet. At this time of the year, trade is generally quiet, but there is quite an active anticipation of improvement in the early fall. Some wholesalers who have been keeping their ears closer to the ground than others, state that there will be an appreciable improvement in Ontario trade within the next month or two. They estimate that the excellent crops and the abnormal demand for the product of Ontario farms will furnish farmers with sufficient means to come into the market for a larger quantity of lumber than usual. Under such conditions they count upon an active trade, if not almost a return to normal conditions.

The lumber trade at Ottawa continues on the same quiet basis as has been in existence since the opening of the war. Prices show no alterations of late, and are not expected to do so for some time. A slight increase is reported in the movement of stock to Great Britain. The large Ottawa Valley manufacturers have very few men in the woods as compared with previous years. Several of them have not as yet made their plans for the winter's operations.

Eastern Canada

Montreal wholesalers are more cheerful than they were a fortnight ago, about trade conditions. No important improvement in business is reported, but better trade is anticipated in a few localities, and the general feeling is mort optimistic. A gradual restoration of confidence is thought to be probable. Contractors are considering methods for inducing capitalists to go ahead with building operations. Shipments to the Old Country are fairly large, but are held back to some extent by lack of room in vessels for Liverpool. To other ports the facilities are better and shipments are in fair volume. Exporters are expecting a much better trade on account of the removal of the competition of the Baltic stocks. The pulp and newsprint situation is strong, with supplies low and prices high.

A steady demand is reported for 2/3 and 2/4 random spruce at Boston, which are quoted at $20.50 to $21 and $21.50 to $22 respectively. For 2/5, 2/6 and 2/7, the price remains at $20 to $21. There is a little more inquiry for 2/8 with a few sales at $23, which is 50c more than the recent regular quotation. Spruce covering boards are rather dull, most manufacturers still asking $21.50, but some of them taking a little less. The demand for lath at Boston is a little easier. For 1⅝-in. $4.10 is asked and some business is reported at $4 and $4.05. The lowest quotation for 1½-in. lath is $3.80. The demand for shingles is moderate and prices are steady. Best grades of white cedar extras are selling at $3.60 to $3.65. Clears are quoted at $2.85 to $3.10, and second clears at $2.60 to $2.65. Choice Vancouver red cedar shingles are offered at $3.63 to $3.75, and some fair Washington extras are quoted as low as $3.35.

Great Britain

Reports from London, England, state that the past fortnight has seen a remarkable amount of activity in the lumber trade. Anyone who has been fortunate enough to possess stocks has been able to dispose of them easily. Numerous transactions have been reported at prices which would have seemed incredible a month ago. The upshot of the present situation is that a very severe shortage of wood goods is certain to develop during the coming winter, which will be a handicap to a number of industries which use wood. The demands of the War Office and of other departments are so large and so important that they are creating gaps in many varieties of stocks on hand. Deliveries at London docks during the week ending August 22nd, amounted to 3,519 standards, as compared with 5,176 standards in the corresponding week of 1913.

A return of confidence is reported in connection with the lumber trade at Liverpool. The freight market has not shown any very extensive advance and a few charters from spruce deal shipping ports have been reported on a basis of 52s 6d to 55s per standard. This includes the East Coast of England and Scotland, which hitherto have not been direct consumers of New Brunswick and Nova Scotia spruce deals. While the Baltic is closed, and supplies of white deals are cut off, the usual importers will have to fall back upon spruce from the Colonies. Inquiries are being made from the East Coast for deals to supply the place of the "Riga whites," the supply of which has now been stopped, and it is likely to remain so for many months. The London Timber Trades Journal states that it is probable, even after the close of the war, that the Riga white deal trade will not be the important competitor it has been against the Colonial trade in spruce. The same journal says that some cargoes of spruce deals from the Miramichi have still to come forward, which were bought before the declaration of war, leaving the purchasers in a very lucky position. They, however, are only asking fair prices and are meeting their customers in a friendly spirit.

An upward movement is reported at Liverpool in c.i.f. spruce values on account of the appearance in the market of East and South Coast importers. Freights are now steady and war insurance is normal, so that a fair amount of business is being done at much advanced figures. Spot values are still firmer and are likely to stiffen. Stocks are only about sufficient to supply the demands which are expected.

No arrivals of pine deals from Canada were reported during the past fortnight and few more are now expected. Canadian red pine deals are selling well in the absence of Baltic reds.

At Manchester, spruce deals are held very firmly. Scantlings are at about £12 per standard and other sizes in proportion. It is reported that this attitude on the part of sellers is not encouraging much business. Red pine goods have advanced about £2 per standard.

The market at Glasgow remains unchanged, and trade is very quiet, with a tendency towards increased inquiry.

United States

Lumber trade channels in the United States continue to be seriously congested, as a result of the disturbance in financial and industrial conditions arising out of the war. The first adverse condition was the increase in money rates, which has caused considerable reduction in domestic consumption. The next adverse condition was the disturbance in the export trade, which is awaiting arrangements for financing purchases and providing vessels for transportation. Previous to the war, trade was gradually improving, but since the war it has fallen back again to its former basis which consists practically of transactions for filling immediate wants. There is no looking ahead in anticipation of increased business. The Southern pine market is not so strong as it was early in August, but there has been no general lowering of prices, Buyers of northern pine continue to conduct their business on a conservative basis. Farmers in the north are busy with threshing, and the retail trade is therefore quiet. Good business is looked for during the fall, as the result of high prices received for grain. In the hardwood trade the effect of the European war is greatly felt, but manufacturers expect an improvement as the season advances. The demand for hemlock has improved. Country retailers are increasing the size of their hemlock orders and producers are expecting an active fall trade.

A "Short Length" Long Pencil

One of the bright methods adopted by the Long Lumber Company, Hamilton, Ont., for keeping their customers interested in the excellent products which they handle, is by furnishing them occasionally with thick lead pencils which are of practical utility both in the office and in the yard. The pencils bear the well-known trade mark of the Long Lumber Company. One of the company's customers who received a favor of this nature, wore it down till it became a "short length" and then came back at the Long Lumber Company with the following letter:—

"Dear Sirs:—This Long pencil is short. If the same were longer, I should remember Long longer, and if you knew how I long for this Long pencil to be longer you would not linger longer but would send me a longer Long pencil with no longer delay. In short this Long pencil has been of great use to me and I would greatly appreciate another."—**W. W. Lovell.**

The Canada Lumberman agrees with the Long Lumber Company, that the writer of the above letter would probably find some Irish blood in his ancestry if he searched far enough back.

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Montreal Trade More Cheerful

Montreal, September 10th (Special to the Canada Lumberman): On the whole reports by local wholesalers are of a more cheerful character. While business has not improved to any marked degree, here and there trade has picked up considerably, and a more optimistic feeling generally prevails. Collections, however, are still difficult. The outbreak of the European war naturally caused much alarm, and lumbermen, in common with those connected with other industries, took prompt measures to curtail expenditure and to reduce operations. Confidence is now being gradually restored, although it is not likely that business will expand to any great extent this season unless contractors find means of re-starting on a large scale. This they are attempting to secure, and a committee of the Builders' Exchange has been appointed to consider methods of inducing capitalists to go ahead with new buildings and to withdraw orders to stop work on structures in course of construction. This will depend on how far workmen are prepared to co-operate with contractors in reducing the cost of building; some contractors are willing to build without profit, but they also ask the workmen to accept lower wages.

The building permits for last month of course show a considerable reduction. The total was $1,114,745, a decrease of $1,203,927; for the year to date the total is $12,158,177, or a loss of $1,658,445.

Although shipments to Great Britain are not on a large scale the outlook is fairly good. Birch and pine continue to go forward in moderate quantities the scarcity of freight room to Liverpool being the one serious drawback. Room for shipments to other United Kingdom ports is up to requirements. Stocks on the other side are being depleted, and as there is no likelihood of shipments from the Baltic for a long time, it is probable there will be a satisfactory call for Canadian lumber, especially of the lower grades of pine and of spruce. The competition of Baltic lumber has of late years hit our red pine trade severely, but now that the former is shut off, inquiries are being made again in this country.

The pulp and newsprint position is practically unchanged. Supplies of these commodities are scarce and prices remain high. It is expected however, that there will be sufficient pulp to supply needs, there being considerable stocks on hand prior to the heavy demand. The chances are that quotations will strengthen within the next few weeks, as the consumption of pulp and newspaper will probably increase, the export demand for the latter being an important factor in the situation. The supply of foreign sulphite will also be limited consequent on the war, so that everything points to the maintenance of a strong market.

Ottawa Market Report—Logging Operations Reduced

Ottawa, Sept. 7; (Special to the Canada Lumberman):—Owing to the water in the Ottawa River being so low J. R. Booth was compelled to close down his timber mill and one of the pulp mills nearly two weeks ago and thereby approximately 1,000 men were thrown out of work. During the past week, however, there have been some exceptionally heavy rains, which have heightened the water and the firm will, it is understood, resume operations on the normal scale in the course of a few days.

Locally, trade is rather quiet and the prospects on account of the money stringency due to the war, are not as bright as lumbermen would like. There have been no alterations in prices lately nor are there likely to be for some time. Watson & Todd report that there has been some movement in exports to Great Britain. Last week Shepard and Morse shipped to Liverpool 600,000 feet of medium grades. Some idea of the effect the war has had already on British trade is given in figures cabled to the Dominion Government today from the British Board of Trade. Imports for August this year compared with the corresponding month a year ago show a decrease of $65,000,000, while exports have fallen off nearly $100,000,000.

In comparison with this time last year, there is very little doing in the lumber camps. The comparatively few men whom the Colonial Lumber Company, of Pembroke, had working in the bush a month ago have been recalled. The Pembroke Lumber Company have only one camp working. The W. C. Edwards Lumber Company, of Ottawa, have no men in their limits yet and they are undecided, so Senator Edwards told your correspondent, whether they will operate any camps at all this season. In other years they have worked ten to fifteen camps. Employment agents here have been instructed by lumbermen not to hire any natives of the countries that are at war with Britain.

Quite a number of men who were working in the shanties came out when they heard of the war and enlisted with the Canadian contingent now in training at Valcartier. Several of these men told the military authorities here that the first knowledge they got of the war was from old newspapers they got in the camps. The E. B. Eddy Company, of Hull, P.Q., have announced that the firm will keep open the positions of any of their men who go to the front.

It has been repeatedly reported lately that the Fraser Lumber Company, of Deschenes, Que., intended to move its entire plant to Hurricanaw this fall. Officials of the company have told the Canada Lumberman representative here that these reports are not true. Mr. F. A. Gendron, who is a member of the firm, states that the company is erecting a large sawmill in the Hurricanaw district, but the Deschenes plant will not be interfered with in any way.

In an official statement issued by the government a few days ago, the declaration is made that there has been no undue increase in the cost of living in Canada since the outbreak of war. "The trade in lumber was at first reduced by the war, but soon improved as insurance rates became cheaper and trade routes were opened. Spruce deals declined slightly at St. John, N.B., as no vessels were to be had for a time," is one extract from the statement in question.

St. John Market Quiet—English Deal Stocks Low

St. John, N.B., September 7th; (Special to the Canada Lumberman):—Very little of an encouraging nature can be said of the lumber industry at the port of St. John during the past month. It has remained stagnant, and at the present time shows very little signs of improvement. It is not a question of price, but of finding a buyer. Three of the saw mills belonging to J. E. Moore & Company shut down about the first of the month, due to shortage of logs, and it is said they will not resume until the last of this month, when enough logs will have come through the booms to keep them at work until November. Chas. Miller has closed his lime kilns and shingle machines, because of the demand for lime having dropped to nothing. The shingle trade is also bad and shows no signs of improving. At present this leaves only six mills in operation, viz., Messrs. Stetson Cutler & Company, two mills; Murray and Gregory, Chas. Miller, Warner & Company, and Randolph & Baker. With the exception of Messrs. Stetson Cutler & Company, these are all sawing English deals.

No large stocks of English deals are on hand as most of the mills are idle and therefore the accumulation since the war began is not heavy. Previous to that date stocks were well shipped up. Stock on hand at city mills would not exceed nine million feet, all of which is sold.

Prices for deals show no decline, in fact they are a little better, but there are no stocks offering for sale.

In the American market business is yet very slow and orders are hard to get. Prices are $1 per M. less than quotations of early spring, when the base was about $24.50 per M. delivered Boston points. The price at which ordinary specifications of two inch are now selling will leave about $15.50 per M. on sellers' wharves at mills.

As yet very little planning is being done for cutting logs for the coming year. People are waiting for the war to take some certain course, and unless it is known before late fall which way the tide will turn, the cut will be very small, but there is yet time enough for planning and it is to be hoped that things will so shape themselves as to make more or less certainty regarding prices and quantity of next year's business.

The water in the St. John River is very low not having reached so low a mark in ten years. This has made the rafting operations very slow and it will be October before the operations are closed up, whereas the work should have been completed by September 1st.

Prices of shingles and lime have fallen and demand is practically nil. Local work of all kinds is about at a standstill and will probably show about on this basis until spring of next year, or until such times as the war clouds break.

The Turner Lumber Company, Limited, have moved their office from 25 Toronto street, where they have been located for a number of years, to the second floor of the new Stevenson Building, corner of Church and Lombard streets, Toronto.

"None So Deaf

As those who won't hear."

If you hear, you will understand; if you understand you will buy; if you buy you will know what we mean by Fenderson value.

You must see the Fenderson Spruce, the smooth dressing, the dryness, the high-line, uniform grade to appreciate Fenderson Value. It is not sold on a competitive price basis, but on a competitive Value basis.

It's a pleasure to handle Fenderson Spruce—from the time you first look into the car 'till long after the last piece has been sold,—it's good, uniformly good,—you will like it,—your customer will like it,—the Goodwill resulting from the sale of this Quality Stock is an asset worth having.

Make that next car a Fenderson car.

You'll like it!

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27 Besse Place
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MILLS AT
Sayabec, Que. Cedar Hall, Que.
Salmon Lake, Que. St. Moise, Que.
Jacquet River, N. B.

WE CARRY THE LARGEST AND BEST ASSORTMENT OF DRY SPRUCE IN CANADA

Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND USE—COMMENT AND VIEWS ON AN IMPORTANT BRANCH OF THE TRADE.

Grading of Veneer Logs

In an address at the annual meeting of the National Basket and Fruit Package Manufacturers' Association, Stanley L. Wolfe, who is in charge of veneer investigations for the U. S. Forest Service, took up the question of log specifications and the utilization of waste from rotary veneer mills. While two subjects are here included, each may be considered somewhat independently of the other.

The speaker said that in preparing any set of specifications the basis to work upon is usually defects, and nearly all specifications for wooden products at least are primarily statements of defects allowable in certain classes or grades of material. The case of veneer logs is no exception and defects in these logs should form the basis for grading them. In all the replies received from veneer men in answer to letters requesting information as to the specifications in use, probably not a single one contained an enumeration of all the defects affecting the value of the logs. However, from a study of all the material at hand a fairly good lineup on the situation was obtained, and the important defects which affect the value of logs for veneering purposes are briefly enumerated as follows: knots, shakes, cat faces, rot, double hearts, heart grown to one side, crook, season checks, frost cracks and seams, worm holes, stained sap, hollows and crooked grain.

There may be good grounds for dispute as to whether or not all these are in reality defects but in considering the entire field of veneer manufacture, each of them is objectionable in one class of veneer or another. Some of them are obvious and recognized throughout the trade. For instance knots are always a defect in veneer and in nearly every kind manufactured must be clipped out. Of course small knots are allowable in vegetable and fruit package materials, but large ones must be eliminated in all cases.

Shakes are also defects in practically all classes of veneer, as are also cat faces, due principally to the discolored or rotten wood or checking accompanying them. Rot in all cases is a defect, but where the centre of the log is rotten, if well centred and of a size which will be covered by the machine chucks with sufficient sound wood present to insure the grab of the chucks, such rot should not be considered a defect.

If the heart centre or pith is so far grown to one side as to fall without the disc of the machine chucks so that the pith centre will be cut through in cutting the veneer, such heart is considered a defect. This includes also double heart.

Crook is always a defect, since a considerable waste in scraps is entailed in cutting a crooked log down to a perfect cylinder, and hollows in logs act in a similar way.

Season checks and frost cracks or seams are defects in that the veneer comes from the machine in small pieces and there is always a certain amount of discoloration present in such material. Worm holes are always defects in face veneers, but are not in core stock or cheaper veneers.

Stained sap is usually a defect and must be clipped out of face stock, box, panel material and nearly all other kinds of veneers. There are other special defects such as presence of sapwood in black walnut logs but those given above are the most common.

With a good line upon defects it is feasible to standardize them and prepare rules for grading logs. Specifications should be as simple as possible, however, so as to be readily interpreted, and yet they should be specific. The difficulties to be overcome can be briefly summarized as follows:

The differences in requirements in logs for different classes must be reconciled.

The availability of raw material in different regions and its effect on requirements must be taken into account.

The diameter requirements of mills in different parts of the country turning out different classes of veneer must be considered.

The differences of opinion in regard to defects must be reconciled.

Summarizing, the advantages accruing by the use of standard specifications are as follows:

The quality of logs received at the mill will always be uniform.

The amount of waste can be gauged.

The amount of raw material necessary to produce a given quantity of product can be easily determined.

The veneer manufacturer will have the advantage of an open log market.

General loggers can cut veneer logs for the general market.

Logs can be ordered and inspected at destination. That will do away with inspection and buying in the forest.

Buyer and seller can get together on an equitable and established basis with few disputes and rejections.

The speaker said that about three grades of logs are sufficient to meet the requirements for all grades of veneer. The Forest Service was working on a set containing three grades of logs, No. 1, No. 2 and Culls, and expected to submit them to the veneer trade in a short time. However, in preparing these tentative specifications, it was borne in mind:

That they should be applicable to all classes of veneers.

That they should be serviceable in all regions.

They should be simple and easily interpreted.

They should be specific.

They should contain standard defects clearly defined.

They should specify sizes.

The specifications for No. 1 logs were framed allowing defects so that the waste in clippings making first grade face stock should not exceed 15 per cent. while the waste in No. 2 logs should not exceed 33 per cent., and in culls a maximum of 50 per cent. With other classes of stock the waste would be considerably less than the percentage just given.

The Three Ply Box

It is something like twenty years now, since the three ply veneer box made its entry into the wooden package world, but it is only during the past few years that it has made much active progress. It has been growing, however, during the past few years and is today not only an accepted item of the box trade, but is coming to be quite an important factor.

There is quite an interesting story in the history and development of the three ply box idea. Like many a new idea which has enough good points in it to produce success eventually, it proved disappointing at first, and for a while was given up and pretty generally accepted as a failure. Good ideas, like good men, however, simply won't stay down. So it came back again and the present indications are that it has come to stay and to play an important part in box business in the future.

Several causes contributed to the failure of the earlier efforts. One cause that is urged sometimes is, that it came before its time and that the making of three ply lumber proved too expensive in competition with solid lumber and that what was needed to make a success of it was a time in the lumber industry when the price of solid lumber would reach the point where it would be just as cheap to make three ply.

There is something in this point of view, yet not so much as one might suppose, because today, three ply box shook is making good progress in the face of the fact that solid lumber is comparatively low in price, in fact nearly as cheap as it was in the early days. It is of somewhat lower quality but it goes to show that the price is not the only thing, at least the price of lumber is not the only factor.

Construction Has Changed

One of the noticeable differences between earlier efforts to promote the three ply veneer box and the later and more successful work along this line that perhaps has not received quite as much attention as it should, is a difference in construction. In the early days the proposition was that of making three ply lumber of practically equal thickness, and to be used in the same manner as solid lumber, whereas in the new idea in three ply boxes it is a different story entirely. The three ply stock used is very thin and the box strength is obtained by cleating. In other words a cleat or frame work of strips is made for strength and the panels are made of thin three ply stock, often only half as thick as was used in the earlier days. Not only is the stock very thin but it is made in even larger panels than were attempted in the earlier days. Conspicuous among the three ply veneer boxes are big dry goods boxes with panels three and four feet square and often less than three-eighths of an inch thick. It is never practical to make a panel this way in solid work. Not only was it impossible to get the size but the strength is not there and the strength is one of the strong points of three ply stock.

There is really not much more difference between the comparative cost of three ply built-up stock today and lumber, than there was twenty years ago. True, lumber costs a little more than it did twenty years ago, even though it has been unusually low during the past

Mr. Lumber-Dealer
Mr. Car-Builder
Mr. Ship-builder

THE PIONEER MAHOGANY MILL OF CANADA

Teak, Black Bean, and all kinds of Mahogany in Lumber and Veneers.

Door Stock in Ash, Oak, Poplar, and Birch cut to size or Log Run, Several Hundred Thousand Feet of Good Dry Mahogany in all Grades and Thicknesses Ready to Ship.

LET US FIGURE ON YOUR 1914 CONTRACTS

Dominion Mahogany & Veneer Company

Montreal West, P.Q.

year. It does not cost any more though than the increased value in stumpage and we should remember that this increased value of stumpage also adds to the cost of veneer for built up work. Indeed it is probable that, so far as raw material is concerned, the veneer costs more today compared with lumber than it did twenty years ago. At that time gum timber had practically no value and cotton wood brought very little so far as stumpage was concerned. The main cost was cutting the timber and transporting it to the mills. Now, however, all timber has value in the stump and this makes the raw material for the veneer cost considerably more than it did twenty years ago. The only points of economy in the matter of cost that have been developed in twenty years are those of cutting facilities and of equipment for handling, gluing and pressing the veneer work. There we have made wonderful progress. Glue spreading machines have been improved and new glues have been developed. The hydraulic press has become common in this work, taping machines have been invented to facilitate slicing and all around us there have been mechanical inventions to help out the work. These have unquestionably contributed quite a share to the progress and success of the three ply stock in the box industry today as well as to its prominence in furniture and cabinet and millwork.

What seems to be the most important point to be gleaned from a study of progress in three ply box work, however, is that of its lightness, permitting the use of very thin three ply stock reinforced with cleats instead of the heavier three ply stock which, it was thought, would be the right thing in the earlier days. There are some uses of heavy three ply for box ends and there are some heavy three ply boxes made throughout for cartridge boxes and boxes of very severe requirements. The great progress of the three ply box, however, has been in light weight packages with very thin panels of three ply reinforced with cleats and at times wirebound.

It is not only to be seen in the big dry goods boxes of the east, furnishing two important elements, those of strength and of lightness, but today it is an important factor in the whisky box trade. The whisky box, in its territory, is one of the most important and expensive boxes made. The trade demands good quality, also strength and service. This has called for good lumber in the past, and good workmanship. Lately a thin panel three ply box with cleated frame has invaded this field and has made quite a commendable record, receiving special indorsement from railway traffic managers, for it seems to hold, to stand up to the service and at the same time to be about as light as it is practical to make a substantial package.

For the maximum of strength with a minimum of weight the three ply veneer box seems to have the best of everything that has so far been offered, and this fact is contributing more to its present progress than any other. For this reason it has been able to come back into the game after its earlier failure, and prove itself worthy and make such progress as to put it in the ranks of important factors in the packing box trade.—Packages.

Important Trade Opportunities in China

The Canadian Trade Commissioner in China in a recent report states that during 1913 a large increase took place in the imports of foreign soft wood timber into China, as compared with the previous year. The gross total imports of soft wood lumber in 1913 was 161,375,117 square feet, while those for 1912, not including the amount re-exported, were 78,912,408—an increase of over 100 per cent. during the year, notwithstanding the heavy imports of 1912.

The cause for the large increase in the importations during 1913 was partly the extensive construction of public buildings during that period, also the fact that the city of Hankow had to be practically rebuilt after the sacking and burning of that city in 1911. Nanking was also almost destroyed during the rebellion of last year, and is now undergoing reconstruction in a much more substantial and foreign-like manner than formerly, and in every provincial capital extensive building operations are going forward at this moment, and much imported lumber is being used. In addition, railway construction has demanded many thousands of sleepers and much heavy timber.

It is extremely regrettable that with this heavy increase of lumber imported into China, Canada has taken so little part in supplying the demand, for no increase is shown in the imports of lumber from Canada in 1913 over those of 1912. China, however, is only beginning to build, and lumber and building material of every description will be required in increasing quantities year by year for some time to come.

In order to secure her share of this very large and increasing business, Canadian manufacturers and shippers should consider the following points of the trade: A special study should be made of the grade of lumber which is now being sold in China, and which is called China grade. It is neither No. 1 nor No. 2. Shipping and freights, the loading and discharging of cargo, time charters, etc., and the system of sales and cables, base rates and flat rates, etc., are also points of the business which are being worked out by competitors and which should not be overlooked. It would seem, too, that the Timber Inspection Bureau is of much assistance to Puget Sound shippers.

As to shipping and freights and the loading of cargo, the British Columbia merchants are probably at a disadvantage when compared with those on Puget Sound. Business arrangements have been made here, and business connections, too, should be established to handle and distribute the timber at this end. The China Import and Export Lumber Company have been of late improving their position and greatly extending their business. This firm occupies large piling grounds on the water front, has branch agencies in Hankow and Nanking, and business connections throughout the whole of Central China.

A large demand for doors and window frames, stairs, mouldings, etc., must arise in China. There are exceedingly few woodworking factories in China, and these are of very small extent and capacity. The Chinese carpenter is a slow worker and his tools are exceedingly primitive, so his dimensions are never accurate. He does not see the necessity of having his door frames quite plumb, and as windows are never made to slide up and down, a little off the actual perpendicular does not seem to matter. Considerable orders for doors and window frames have recently been sent to Birtish Columbia mills and several inquiries have been made for information and prices, so further orders may confidently be expected to follow. This business should develop extensively and eventually attain large proportions.

Business in the west of Scotland timber trade, which had hardly got more than started after the holidays, has been brought to almost a standstill by the war news. There is considerable speculation as to its effect on values, which will be to a large extent influenced by the supplies on hand. Of the woods largely used in this market in two instances only (pitch pine and Oregon pine) can the supply be described as ample, they representing about a half of the entire stock of timber of all descriptions on the Clyde at present. Speaking broadly, the position of affairs may be said to be that on a basis of the first six months' consumption; the total amount of timber in the Clyde represents approximately from four to five months' supplies. Stocks in some instances are exceptionally light, the most notable probably being Canadian and Russian spruce deals, teak, birch, mahogany and furniture woods generally. The position appears to be that the lightly stocked woods at least will advance in value if for no other reason that the impossibility of replacing them except at a considerable addition to the cost.—Weekly Trade & Commerce Report.

An Interesting Moisture Testing Machine

An instrument of much importance and interest to the lumber trade, which is manufactured by the Morton Dry Kiln Company, Chicago, Ill., is described in a recent attractive catalogue published by this firm under the title of "Troemroid Scalometer, An Instrument for Testing Materials to Determine Amount of Moisture."

In referring to this instrument the catalogue says: "It has been the custom in buying or selling lumber to give but little attention to its moisture contents when considering its market value. The mills designate the stock as green from the saw, or 3, 6, 9 or 12 months air dried as the case may be. While this gives the purchaser a general idea as regards its moisture condition, it sometimes proves very misleading as lumber that has been air-dried in one locality or under favorable yarding conditions might air dry more in three months than it would in another locality or under unfavorable yard conditions in 6 to 9 months.

The time of the year the lumber is cut or piled on the yard also has a great influence as to its rapidity in air drying. A great number of woods will shrink in volume from 10 to 15 per cent. from green to kiln dry.

"It would be much more just to the buyers," the catalogue says, "as well as to the seller of lumber, if a basis could be established for marketing this product so that both parties could know the exact moisture condition as well as loss in volume due to shrinkage.

"The mill that can offer for sale lumber that contains only 15 to 25 per cent. of moisture should command a premium over the mill that is offering lumber with 30 to 35 per cent. moisture, as the purchaser is getting more lumber and less water, also a saving on freight and securing stock that can be put through his kilns in less time and with less loss in shrinkage.

"What may seem like well air-dried lumber to one person or firm may not appeal to another. Think of the arguments and disputes that could be eliminated in this way alone if buyer and seller both knew the exact moisture contents of the lumber at the time the sale was made."

The Troemroid Scalometer is claimed to fill the above requirements fully, and the company will be pleased to hear from any of our readers who wish for further information upon the subject.

Jenckes Boilers

Horizontal Tubular Boiler
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Penstocks
Smokestacks
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All Sizes, To Any Provincial Act. Write for quotations.

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Sherbrooke, Montreal, St. Catharines, Toronto, Cobalt, South Porcupine, Vancouver, Nelson
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1851 G&K TRADE MARK

THE GRATON & KNIGHT MANUFACTURING CO.

A Sawmill Belt of Unusual Endurance

Not affected by water, weather, cold or dampness of any kind, a belt to last where, in no time, the ordinary kind you've tried have all gone to pieces—and which embodies the characteristics of extreme toughness and flexibility—is our

Neptune Waterproof Leather Belting

Behind it are records of the most extraordinary service—in one instance having been running continuously out in the open—exposed to rain, fog and hot sun—for over seven years and is still in active service with good prospects of lasting many years yet to come.

You'll be interested in our "Neptune" booklet. Send to-day for your copy.

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Hardwood in the Retail Yard

The consumption of hardwood lumber of various kinds by planing mills and through retail lumber yards has reached the point now where those who are exploiting these products may well give more attention to the systematic cultivation of this field. It might even be urged that for the past few years this field of trade has not yielded so large returns as it should have because hardwood manufacturers have not sought to cultivate it so thoroughly or so attentively as they might. There has been too much inclination to regard it as a small incidental trade that fills in and helps one but not worth serious effort to follow up and cultivate, says J. C. T. in Hardwood Record.

Illustration of what may be done along this line is furnished by a case in the veneer industry where a manufacturer of high-grade hardwood veneer turned special attention to the development of trade with the planing mills having glue room departments. This trade seemed so small and insignificant with each individual mill that veneer people heretofore have not sought it. This man concluded to try it out thoroughly, and after a year or two cultivating this trade with close attention, he said that it was proving to be the best business he had. There were not a great many carload orders, in fact, most of the trade was in small lots, but he found at the end of the year that the aggregate not only amounted up to a goodly total but that his best profits had come from these small lot sales.

Another illustrative case may be found in connection with oak flooring. There has been a fair amount of exploitation of maple flooring before the retail trade but many of those making oak flooring through special channels, through individual agents who take contracts for and lay and finish the floors. There is not much question either but what a certain part of the parquetry and of the oak flooring trade will continue through this channel, especially such as show window work, but just the same in the face of this tendency and these special agents and contractors, a progressive retailer in one of the large cities has taken up this hardwood flooring idea as a strong feature. He has put a man well acquainted with the hardwood trade on this kind of business exclusively—that is the selling of hardwood flooring and of hardwoods of various kinds to the local trade at retail. The result so far seems to have proven entirely satisfactory and to have demonstrated an argument made in these columns heretofore, that a retailer, by carrying a proper stock of oak flooring and giving attention to its exploitation, can get a lot of business he had missed before, and in time can develop the trade so that local flooring contractors and layers will come to him for their supplies instead of having local shipments made for each job from the factory.

A remarkable change is coming over the retail trade and its attitude toward oak flooring and hardwoods in general. Only a few years ago the secretary of one of the retailers' associations brought the subject of oak and parquetry flooring to the attention of a meeting of the board of directors which was made up of influential retailers from various sections of the state. He pointed out to them that they were missing a certain share of the lumber trade and forcing manufacturers of oak and parquetry flooring to go direct to consumers with their product when they might buy this product and carry it in stock. One of these progressive retailers made the statement that he didn't care to bother with it and would rather see it go direct. Since that time, though, there has been a change of feeling on this subject. It is being realized that the hardwood flooring, and especially oak and parquetry in certain sections of the country, is coming to be an important part of practically every good home built, and is therefore an item well worth carrying in stock by retailers.

Meantime there comes a much more extensive use of hardwood for interior trim. From the North we have birch trim in standard patterns which many retailers are now carrying in stock; on all sides of us the planing mills are working birch, oak, gum, chestnut, maple and other hardwoods into casing, base, stairs, paneling and making various kinds of hardwood trim and millwork to order. Meantime here come the gum people boosting gum for millwork as well as for furniture. Their investigators have shown that very likely one reason why more gum is not used for interior trim is because it is very expensive when bought and made up to special order for each individual job, whereas other woods, especially pine, are offered much cheaper in standard patterns made in quantity at the mills.

This opens up one of the questions that should be seriously considered by the entire hardwood trade and that is the question of putting in kilns and planing mill equipment and making standard patterns in hardwood trim for sale through the retail yards.

It would not only enlarge the possibilities for marketing, by having this stuff worked to pattern as the pine people do lots of this work, but it would make easier the carload shipments and competitive prices with the softer woods. One thing that makes the retailer hesitate about buying gum or any other hardwood trim or mouldings is that he does not care to buy a carload of it at once. In buying his pine he has long since been schooled to the habit of making up mixed car orders, in which he can include anything in the way of casing base or other special worked stock, and then have the carload made up of flooring, boards or framing.

With the hardwood millman in a position to furnish flooring, casing, base step stock and various other worked items as well as rough lumber, the chances for trade in carload lots become much better in dealing with retail yards. Practically all retail yards carry some quantities of rough hardwood. Often the man furnishing oak lumber may be in a position to furnish poplar siding and dressed poplar boards. Then if he can include oak flooring, oak for casing and base dressed to pattern and oak for window sills his chances for carload trade in mixed orders are exceptionally good. The gum manufacturer has some of the same chances, that is for siding both of the bevel type and of the drop siding type, gum boards, rough and dressed, gum for flooring, and for interior trim and for ceiling. If these are made up in quantities to standard patterns there is almost as good an opportunity to sell mixed cars in hardwood to the retail trade as there is to sell yellow pine, and there is a splendid talk for the hardwood in the fact that it makes a trim and takes a finish which compares with cabinet work for which people do not think of using the soft woods.

Taking the retail yard trade through and through, it offers splendid opportunities for the exploitation of a wide range of hardwood products. Moreover, during the spring months some of the hardwood lumbermen of the South have admitted that were it not that the planing mills and retail yards, those catering to the building trade, have been liberal buyers of hardwood this spring the hardwood business would have been decidedly dull. This is pretty conclusive evidence that the yard and planing mill trade has grown to be an important factor. Indeed, it seems important enough that it should receive the serious consideration of the entire hardwood trade.

Loss of Output in Saw Mill

A very frequent cause of the reduction in the quality and quantity of the output in a saw mill arises from the variation of the speed of the engine, either from lack of power to withstand heavy, suddenly applied loads or inefficient governing. By the introduction of direct electric motor drives something has been done to remedy this variation in speed, but in many of the older mills there still remains much room for improvement.

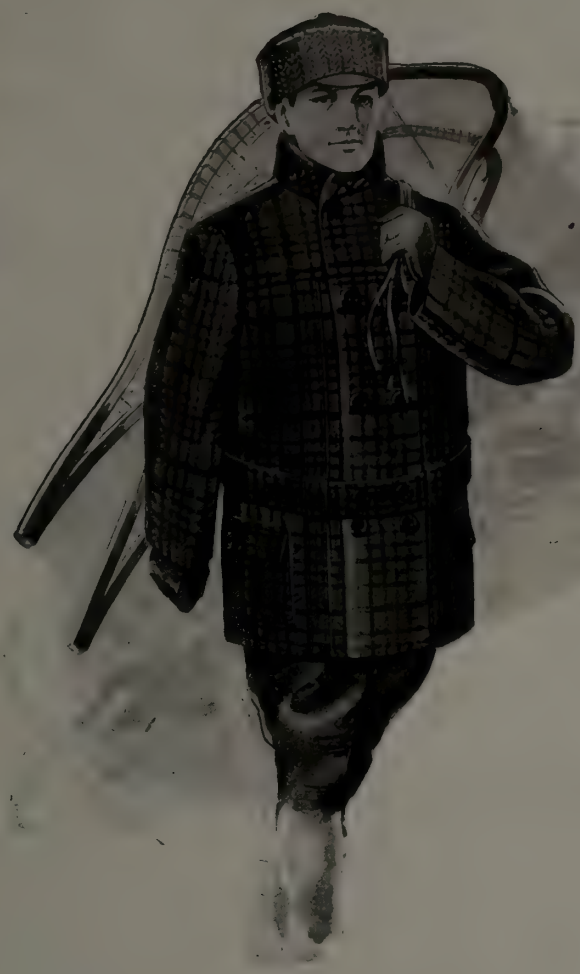
If the number of revolutions of an engine running at, say, 100 revolutions is only reduced three revolutions, it will effect a planing machine running at 4,000 revolutions on the cutter-spindle some 120 revolutions, which is quite sufficient to affect the quality and quantity of the output, which in the course of a year may amount to a considerable item. Again, after a load has been removed, if the governing is not prompt and efficient the speed of the machines may be increased to a large extent.

Even when an efficient governor is fitted, to ensure steady running it is important that its gear be kept in first-class order and carefully lubricated. If it is allowed to run dry, or if an oil is used that is given to gum up, it will run unevenly. If the governor is driven by a belt, unsteady running may be caused by its slipping or not running true, and possibly bearing hard against a pulley-flange. The belt should be of ample width, be evenly jointed and kept pliable. We have seen many governors so placed that they had to be driven by a very short belt, which had therefore to be kept unduly tight. In these cases chain gearing can often be substituted with success, the slip being thus done away with. When the joints or gear show signs of wear have them seen to, as, to be effective, the whole governor should be in a thoroughly sensitive condition. Keeping the engines and machines in a mill up to a standard speed is a highly important economical factor, but is one that frequently does not receive the attention it deserves.—Timber Trades Journal.

An Important Waterous Bandmill Catalogue

An attractive new bandmill catalog has just been issued by the Waterous Engine Works Company, Limited, Brantford, Ont. The catalog not only gives illutsrations and descriptions of Waterous bandmills, but also includes a large amount of important information regarding the various parts and their functions. Excellent illustrations of these parts are included, also useful illustrations of foundation plans which will be of great assistance to those who are installing Waterous equipment.

The Waterous bandmill, which was placed on the market in 1909, departed in many ways from accepted standards in bandmill building practice. Its principal features—the spring balanced saw tension, tilting device, the method of supporting the upper wheel, and the design of the upper and lower guides, are worth notice. The steam raising and lowering device for upper saw guide has been added recently and is specially illustrated and described. This feature is of special benefit in speeding up and simplifying the operation of the mill.



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EDGINGS

Ontario

E. A. Le Bel, of Sarnia, Ont., wholesale lumber dealer, has made an assignment.

The Algoma Timber and Lumber Company, of Michigan, has secured incorporation in Ontario, with authorized capital of $120,000.

The Cleveland-Sarnia Saw Mills Company, Limited, suffered a loss of about 250,000 feet of lumber in a fire in their yards at Sarnia on the 8th inst.

The Algoma Timber and Lumber Company, of Sault Ste. Marie, Ont., has been incorporated with authorized capital of $120,000. Mr. William E. Brown is the Attorney for the company.

The Field Lumber Company, Limited, Field, Ont., has been incorporated with an authorized capital of $50,000. Those interested include Z. Morean, Sturgeon Falls, and J. U. Lamarre, Field, Ont. They are given power to conduct a general lumber business.

A recent report from Niagara Falls, Ont., states that the city council have decided to purchase about $1,000 worth of electric light poles. The superintendent of the Electric Light Department is Mr. George Foster, and the city clerk is Mr. W. J. Seymour.

The Spanish River Lumber Company, Limited, have 22 camps operating in the woods this year and will cut 60,000,000 feet. This is ahead of any previous year's cut and shows the confidence of the men behind the concern in the future of the lumber business in Canada.

A stave mill at St. Thomas, Ont., owned by the Sutherland, Innes Company, Limited, of Chatham, Ont., was recently destroyed by fire. The mill had been for sale for some time, and practically all the machinery had been removed. The loss is covered by insurance.

The Wallaceburg Lumber Company, Wallaceburg, Ont., whose notice of incorporation was recently published in the Canada Lumberman, are the successors of McNairne Bros., Wallaceburg, Ont., whose business they purchased. They will carry on the regular lumber and building business of their predecessors.

E. B. Foss & Company, Bay City, Mich., who formerly owned and operated the mill of the Hope Lumber Company at Thessalon, Ont., which was destroyed by fire in 1912, have purchased the mill of the North Channel Lumber Company at Thessalon. They have not as yet announced any plans in connection with the operation of this plant.

A recent dispatch from Little Current, Ont., states that there is a serious probability of the Indians upon the Island becoming a Government charge during the coming winter. These men have depended upon logging operations for their winter's employment and it is expected that there will be scarcely any work of this nature upon the Island during the coming winter.

On account of the cutting off of the supply of European pulp and print paper, Canadian pulp mills are working at fullest capacity to meet the greatly increased demand. Mr. W. E. Stavert states that the plants of the Spanish River Company and of the Lake Superior Paper Company have been working at 100 per cent. capacity. The Spanish River Company's year ended on June 30th, and the annual meeting is to be held this month.

Eastern Canada

The sawmill owned by B. F. Smith at Florenceville, N.B., was recently destroyed by fire.

A large quantity of lumber at the plant of the Richards Manufacturing Company, Campbellton, N.B., was recently destroyed by fire.

A brisk demand for the product of the paper and pulp mills in the interior of Newfoundland has resulted from conditions growing out of the war in Europe. Steamers are rapidly arriving to take on board cargoes for England. It is expected that the mills will be obliged to supplement their present equipment and it is anticipated that new pulp and paper concerns will shortly be in operation. The demand is due chiefly to the increased needs of the news papers in London and other British centres.

The saw mill of the St. Lawrence Pulp and Lumber Corporation, Chandler, Gaspe, P.Q., is now in operation. The company have 25 miles of railroad graded, and 15 miles of track laid, while another ten miles will be laid before the frost. There are two locomotives of the Shay type and one side rod engine of the Mogul type, and these keep the saw mill continuously furnished with logs. When the pulp mill begins operations in December or January, additional locomotives will be required. The log loaders used in the bush are the American log loaders. The cars are all steel, with 5 feet trip stakes. The pulp mill is nearing completion so far as the building is concerned, and the installation of machinery will commence next month. The company's townsite is practically finished, there being between 60 and 70 houses occupied. In addition, new houses are in course of erection by tradesmen and labourers.

Western Canada

Arbuthnot Brothers' sash and door factory at Victoria, B.C., was recently destroyed by fire, the loss being $10,000.

The A. B. Cushing Company, Limited, has been incorporated, with head office at Vancouver, B.C., and authorized capital of $20,000.

The White Pine Lumber Company, Spokane, Wash., will build a large mill at Westbridge, near Greenwood, B.C., where they have a townsite.

The North Battleford Manufacturing Company's sash and door factory at North Battleford, Sask., was recently destroyed by fire, the loss amounting to $25,000.

The factory of the Sunset Sash & Door Company, 724 Broadway West, Vancouver, B.C., was recently destroyed by fire. The loss is placed at $10,000 which was partly covered by insurance.

The Canadian Pacific Lumber Company, Port Moody, B.C., recently lost about 1,500,000 feet of lumber by fire. The total loss is estimated at about $20,000. The mill and dry kilns were not damaged.

The shingle mill belonging to Messrs. Langs & Roddis at South Sumas, B.C., was recently destroyed by fire, together with about three carloads of shingles. It is not yet reported whether the company intend to rebuild.

A. Williams, of Vancouver, is president of the Colonial Sash and Door Factory, which recently started operations at Huntingdon, B.C., R. L. Gallinger, the manager, has had thirteen years' experience in the Puget Sound country, while H. M. Morris, another associate, is a practical man from England.

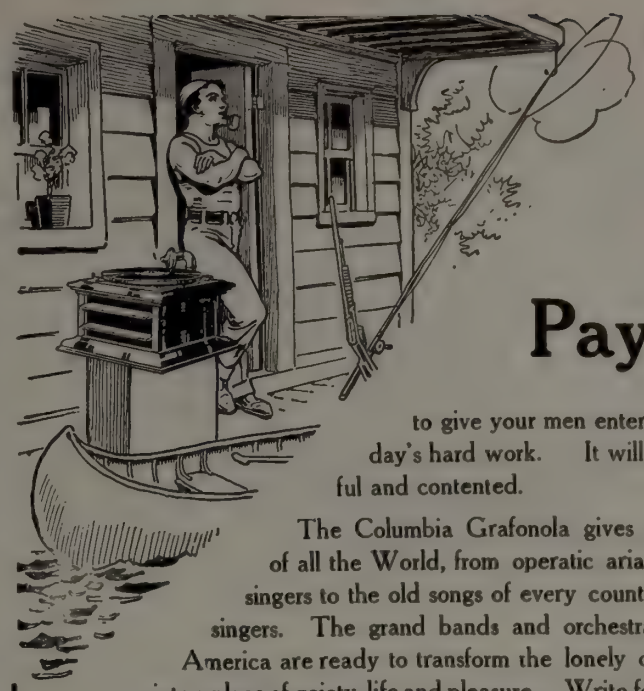
The Fernridge Lumber Company, of New Westminster, B.C., who recently lost their plant by fire, report that the loss was approximately $200,000, and the insurance amounted to $92,000. At present they have not decided whether they will rebuild, but they say that they have a large quantity of timber, about six miles of standard gauge railway, and all their logging equipment, so that it is more than likely that they will rebuild.

Sealed tenders are being received by the Minister of Lands at Victoria, B.C., up to noon on the 30th day of November, 1914, for the purchase of nine pulp licences, situated on the coast of British Columbia, and estimated to contain the following:—Hemlock, 87,301,000 feet B.M.; balsam fir, 44,444,000 feet B.M.; spruce, 43,244,000 feet B.M.; cedar, 27,779,000 feet B.M.; Douglas fir, 2,779,000 feet B.M.; total, 205,547,000 feet B.M. This timber is within ten miles of salt water and is tributary to Vancouver. Thirty years will be allowed for the removal of the timber. Full particulars and maps may be had from H. R. MacMillan, Chief Forester, Victoria, B.C.

The plant of the Skeena City Mills, Limited, of Skeena River, B.C., is located at a point 32 miles from Prince Rupert, on the Grand Trunk Pacific at the mouth of the Khyex River. The timber is fir, cedar, spruce and hemlock. The mill is a circular with a capacity of 50,000 feet. Two 10 x 12 donkey engines are used for logging. A dry kiln with a capacity of 30,000 feet of lumber or 35,000 shingles will be added. Two shingle machines are used and another Schaake upright will be installed later. It is also contemplated to add 24 x 48 Corliss engine and another 160 horsepower boiler, vertical band resaw, 14 x 14 sizer and a heavy outside moulding machine. The mill has a siding into the yard and a six-cent rate to Prince Rupert, a city of 6,000 people, with a 60-cent rate to Toronto. The officers of the company are E. W. Lesson, president; L. Manson, vice-president; I. Jordan, managing-director; J. H. Stanton, secretary-treasurer, and John F. Clark, general superintendent. I. Jordan, the managing director, is interested in the Prince Rupert Lumber Company, which operates a yard in Prince Rupert. It is the intention of the Prince Rupert Lumber Company to establish additional yards at Wainright, Fort George and Smithers stations on the Grand Trunk.

The Galt Knife Company, Limited, Galt, Ont., have issued an excellent illustrated catalogue of their productions, which are widely known and very popular among all users of machine knives of every description. In addition to a very complete set of illustrated descriptions of their various productions the catalogue contains a useful set of blank forms for use in connection with machine knives by means of which operators may keep track of the knives they use. Copies of this catalogue, which are sure to be appreciated by users of machine knives, may be obtained by writing to the Galt Knife Company, Limited, Galt, Ont.

A report from Chatham, N.B., states that the lumber trade situation has improved considerably during the last few weeks. Several vessels have been chartered, some having already arrived, for export loads. The market in the Old Country is reported to be encouraging. Freights have advanced, but the prices of lumber have also gone up, and a profitable trade is expected, unless the war dislocates commerce to a greater extent than it has up to date.



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Graton & Knight Mfg. Company.

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Dominion Belting Company
Federal Engineering Company
Goodhue & Company, J. L.
Graton & Knight Mfg. Company
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Graves, Bigwood & Company
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Georgian Bay Lumber Company
Glengarry Lumber Company
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Harris Tie & Timber Company
Laidlaw Lumber Company, R.
McLennan Lumber Company
Montreal Lumber Company
Newman, John P.
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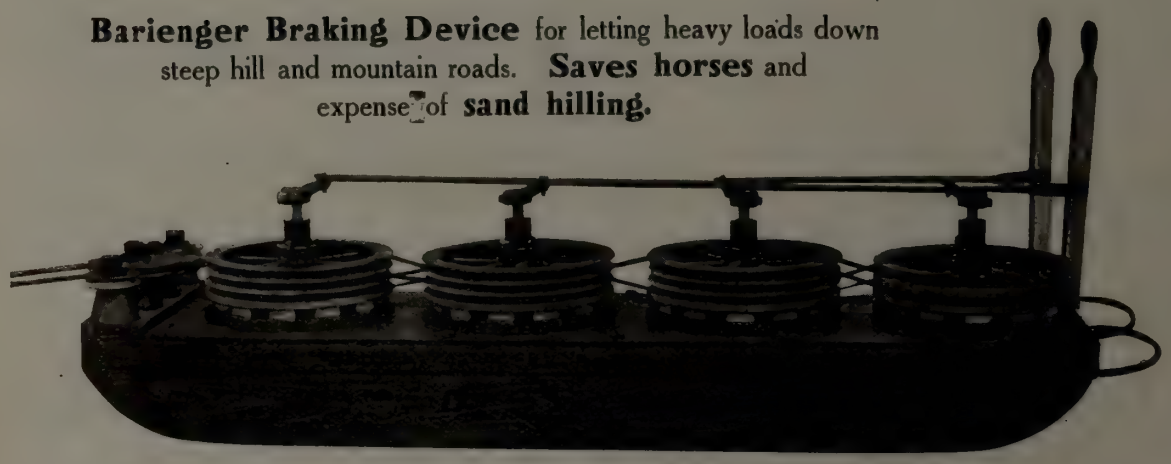

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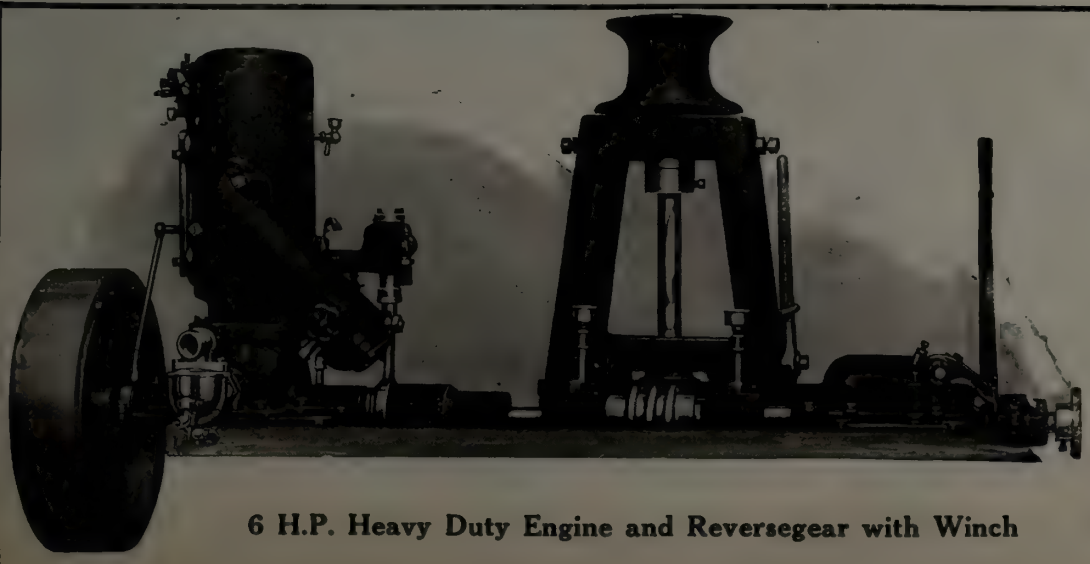

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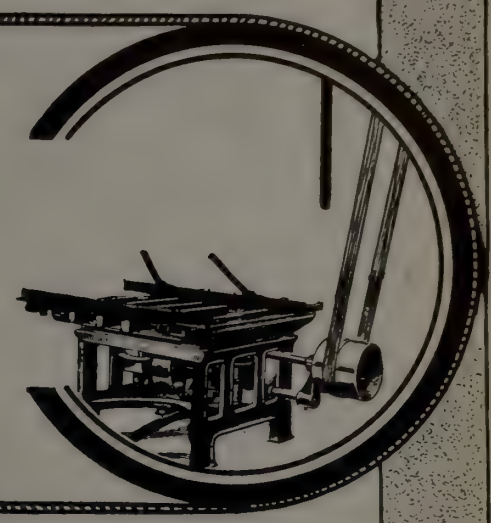

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5/4 and 6/4 x 10 m.r., m.c. out		32 00
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Pine, No. 1 dressing shorts ..	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips ..	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips ..	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips ..	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips ..	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft. ...	25 00	26 00
Pine, 1-in. x 10-in. M.R.	**27 00**	**28 00**
Pine, s.c. sidings, 1½ and 2-in.	**28 00**	**30 00**
Pine, s.c. strips 1-in.	**21 00**	**23 00**
1¼, 1½ and 2-in.	**24 00**	**26 00**
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:.		
1" x 4" and up, 6'-11'	17 50	18 00
1"x 3" to 6", 12'-16'	**19 00**	**20 00**
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12 ...	**21 00**	**22 00**
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16' ..	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16' ...	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	65	70
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	
By the dram, according to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$ 21 00	22 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	**42 00**
1¼ in., 8-in. and up wide	**55 00**
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide....	**75 00**
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	**34 00**
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00	25 00
No. 2, 1¼, 1½, 2-in.	19 00	23 00

Mill Culls

Mill run culls, 1-in.		19 00
1, 1¼, 1½ and 2-in.		20 00
No. 2	17 00	18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	28 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft. ...		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths ..	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ..	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

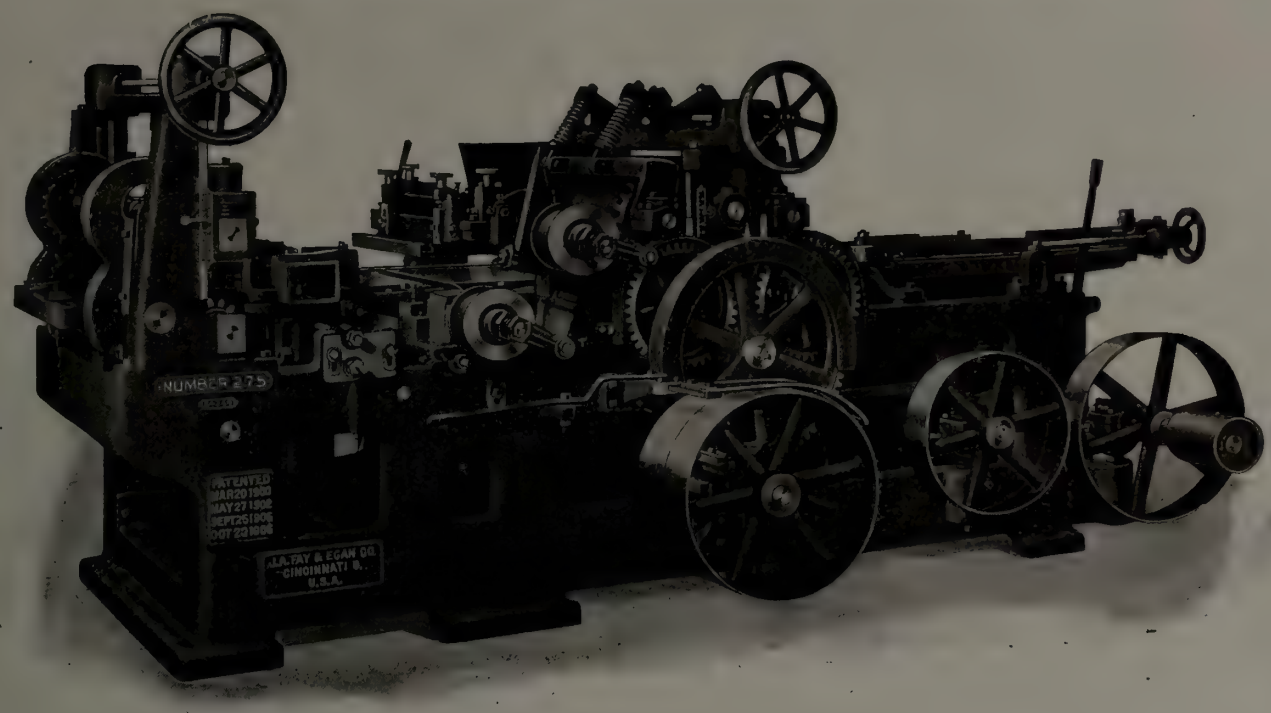
White Pine

Wholesale Selling Price

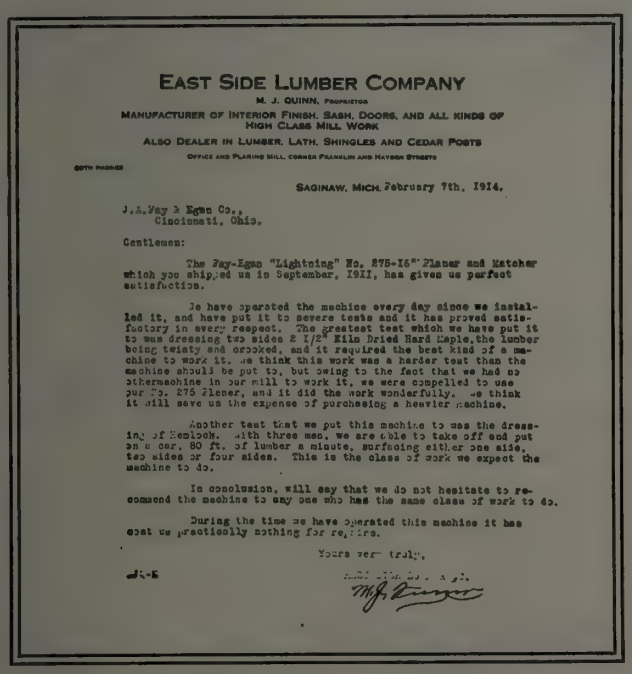
Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	52 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00

(Continued on page 68)

More Proof of the Value of this Medium Weight and Medium Priced Matcher FAY-EGAN "LIGHTNING" No. 275



Satisfied Owners everywhere are telling us how the 275 is doing all that we claimed for it, even more—it will do the same for you.



EAST SIDE LUMBER COMPANY

M. J. QUINN, PROPRIETOR

MANUFACTURER OF INTERIOR FINISH, SASH, DOORS, AND ALL KINDS OF HIGH CLASS MILL WORK

ALSO DEALER IN LUMBER, LATH, SHINGLES AND CEDAR POSTS

OFFICE AND PLANING MILL, CORNER FRANKLIN AND HAYDEN STREETS

SAGINAW, MICH. February 7th, 1914.

J.A.Fay & Egan Co.,
Cincinnati, Ohio.

Gentlemen:

The Fay-Egan "Lightning" No. 275-16" Planer and Matcher which you shipped us in September, 1911, has given us perfect satisfaction.

We have operated the machine every day since we installed it, and have put it to severe tests and it has proved satisfactory in every respect. The greatest test which we have put it to was dressing two sides 2 1/2" Kiln Dried Hard Maple, the lumber being twisty and crooked, and it required the best kind of a machine to work it. We think this work was a harder test than the machine should be put to, but owing to the fact that we had no other machine in our mill to work it, we were compelled to use our No. 275 Planer, and it did the work wonderfully. We think it will save us the expense of purchasing a heavier machine.

Another test that we put this machine to was the dressing of Hemlock. With three men, we are able to take off and put on a car, 80 ft. of lumber a minute, surfacing either one side, two sides or four sides. This is the class of work we expect the machine to do.

In conclusion, will say that we do not hesitate to recommend the machine to any one who has the same class of work to do.

During the time we have operated this machine it has cost us practically nothing for repairs.

Yours very truly,

JK-E

In fact, every one of the 275 we have put out has more than satisfied the purchaser in both quantity and quality of production.

The letter, herewith, shows how they use their 275 and what they think of it. We have others from all parts of the country proving it to be the Greatest General Purpose Planer and Matcher on the market.

The 275 is just the machine for your mill or factory. It is medium in price and weight, low operating cost, a fine Matcher and Floorer, a great surfacer, as well as an Inside Moulder.

Accessibility to all parts is a feature of the 275, a necessity of the general purpose machine.

If you need a General Purpose Machine why not get the Greatest—a 275. Write today.

J. A. FAY & EGAN CO.

465-485 W. Front St. **Cincinnati, O., U. S. A.**

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	30 - 32	20 - 22	14 - 16
5/5 to 8/4	33 - 35	22 - 24	14 - 15
10/4 to 16/4	37 - 39	27 - 29	19 - 21

RED BIRCH

4/4	41 - 43	27 - 29	15 - 17
5/4 to 8/4	43 - 45	29 - 31	17 - 19

SAP BIRCH

4/4	35 - 37	23 - 25	17 - 19
5/4 and up	37 - 39	25 - 27	17 - 19

SOFT ELM

4/4	35 - 37	24 - 26	15 - 17
5, 6 & 8/4	37 - 39	26 - 28	17 - 19

BASSWOOD

4/4	33 - 35	24 - 26	16 - 18
Thicker	35 - 37	26 - 29	19 - 20

PLAIN OAK

4/4	51 - 53	32 - 34	20 - 22
5/4 to 8/4	53 - 55	34 - 36	22 - 24

ASH, WHITE AND BROWN

4/4	45 - 47	27 - 29	18 - 20
5/4 to 8/4	52 - 54	29 - 31	19 - 21
10/4 and up	61 - 63	41 - 43	21 - 23

BOSTON, MASS.

White pine uppers, 1 to 2 in.	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00

Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 0	27 00
Spruce, 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce, 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50

All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1¾-in. spruce laths	4 15	4 25
1½-in. spruce lath	3 75	3 80

New Brunswick Cedar Shingles

Extras	3 50
Clears	2 90
Second clears	2 75
Clear whites	2 45
Extra 1s (Clear whites out)	1 50
Extra 1s (Clear whites in)	1 0⁄
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40 3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.	4 25
Red Cedar Perfection, 5 butts to 2¾	4 80
Washington 16-in. 5 butts to 2-in. extra red clear	3 35

Patented Nov. 29-1892
July 19-1910

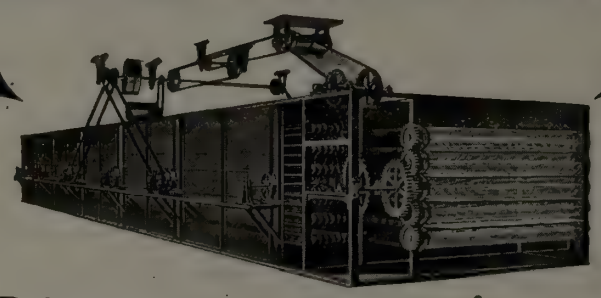
PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

PROCTOR VENEER DRYER



Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

Send for catalog and list of users

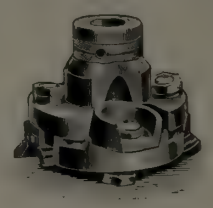
The Philadelphia Textile Machinery Co., Philadelphia

The

Shimer Cutter Heads

For Door and Sash Work

These Heads are designed especially to meet the requirements of Door and Sash makers—to save all the hand fitting. The shape of the mould desired is turned into the Circular Bits, guaranteeing a uniform pattern, and that there will be no trouble in framing door and sash parts when matched with Shimer Cutter Heads. Prices are as follows:



Door Head in solid section, complete with Bits to work 1 to 1¼ in. Doors	$18.03
Door Head with Expansion feature complete, extra	2.60
Bits for heavier doors $7.28 to $9.36 per set.	
Sash Head in solid section, complete for 1 to 1¼-in. Sash	17.91
Sash Head with Expansion feature complete, extra	2.60
Bits for heavier sash $7.00 to $7.66 per set.	
Cope Heads without Bits, each	6.45
Cope Bits moulded to pattern, $1.43 to $1.56 each.	

If you wish to reduce running expenses it will pay you to study the advantages offered by the Shimer Cutter Heads. There is nothing like them for strength—for Reliability—for Fast Cutting—for Quick Adjustment—for all-round work and lasting qualities.

These tools are turned out of Solid Steel Forgings—have the Shimer "make-ready" which saves you all the fitting and trying—keep your work up to the standard

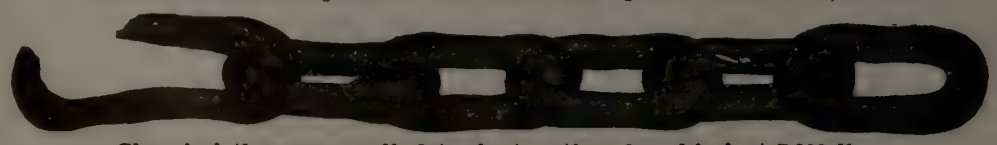
For further particulars address

Samuel J. Shimer & Sons

GALT, ONT., CAN.

"AJAX" The World's Strongest Chain

Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

Do your log loading with the "Ajax" loading chain, every link of which is guaranteed. The illustration tells a convincing story.

Manufactured only by

Standard Chain Company

Pittsburgh, Pa.

The World's Largest Chain Producers.

Montreal: Alexander Gibb, St. Nicholas Bldg.
Winnipeg: Bissett & Loucks.
Vancouver: John Burns, 329 Railway St.

YOU CAN INCREASE YOUR PROFITS

BY HANDLING OUR

E. G. FIR FLOORING FIR FINISH FIR MOULDINGS

E. H. HEAPS & CO., LIMITED

VANCOUVER, B.C.

Mills at Ruskin and Vancouver, B. C. | HEAD OFFICE: 446 Hastings St. West, Vancouver, B. C.

Your Lumber Horse Needs

A talk with the Lumberman of Canada on the modern and sanitary system we have installed to serve your requirements.

FINANCIAL RESPONSIBILITY.—We are in a position this season to supply the lumber trade with the finest heavy horses suitable for camp work. We have shippers in the very best heavy horse district in Western Ontario, who make personal selections and take only the best. Every horse we ship out is guaranteed to be just as represented by us as to age, soundness, weight and quality—there is more than two million dollars behind this guarantee. These horses can be delivered off the incoming cars and transhipped in an hour from our yards.

SERVICE.—Our barn accommodation is up-to-date in every particular and has stabling accommodation for 500 horses. A track is also maintained for exercising horses while on the company's premises.

SANITATION.—Believing that prevention is better than cure, and to give the very best service possible we have this year employed a veterinary surgeon under salary. A daily and most thorough inspection is made by him of the entire barns and in this way the slightest indisposition is noted and the animal suffering immediately removed to the hospital on the grounds. "Safety first" is our motto in this respect.

TRANSPORTATION.—Our premises being directly on the lines of the C. P. R., G. T. R. and C. N. R., our rail facilities are such that we are in a position to ship on an hour's notice, and loading and unloading chutes are located right at the barn doors.

We gladly invite inspection of our entire system. Come and let us show you the most modern and sanitary system in Canada.

Union Stock Yards of Toronto, Ltd.

Horse Department: **Wm. Read, Sales Manager**

FULL VALUE FOR YOUR MONEY

YOUR KNIFE GRINDING

Should be done on a **Rogers - Buffalo** Full Automatic to get best results. Cut illustrates our Type "B" Grinder, with range from 54" to 130" Price $220 to $395.

We make a complete line of Knife Grinders and Saw Sharpeners, suited to every requirement.

Write for Catalogue.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N.Y.

Dixon's Graphite Water-proof Grease

A single trial of this splendid heavy bodied mixture of mineral grease and flake graphite will convince you of its superiorities, both as a lubricant and as a rust preventive, over any other grease on the market. No saw mill plant should be without it, for the protection of slides, open bearings, chains and wire ropes.

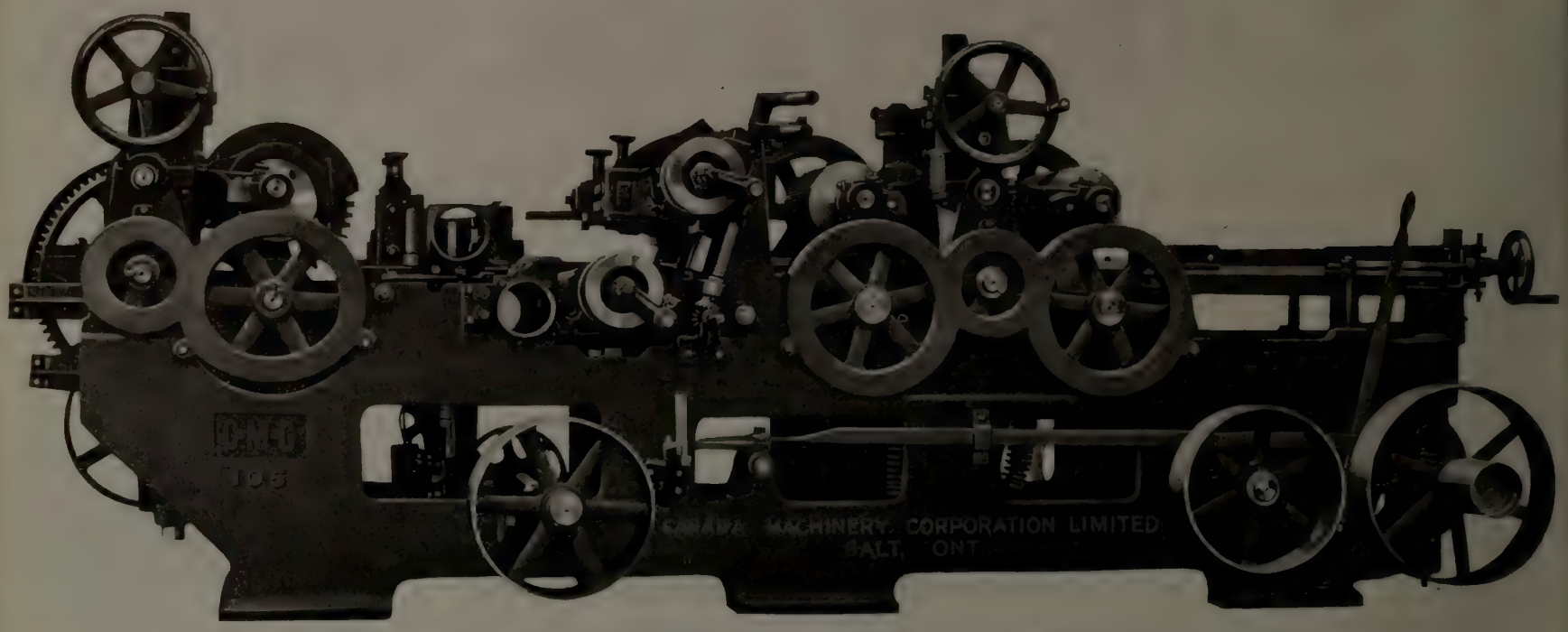
Send for Booklet No. 238 on "Waterproof Grease."

Made in JERSEY CITY, N. J. by the

Joseph Dixon Crucible Co.

Established 1827

Planer and C.M.C. Matcher



No. 105—15″ Double Cylinder Planer and Matcher

A Medium Weight, Medium Speed and Medium Priced Machine for General Planing Mills

The following desirable features are found in this machine:

Top Rolls have a **positive** paralleled lift, cannot bind under any condition.

The Delivery Rolls are driven by single belt drive eliminating the usual long train of gears.

All Gears run on shafts mounted in bearings.

There are no gears hung on studs on this machine.

The machine can be quickly and readily set for either single or double surfacing.

Produces excellent work at all speeds up to 100 feet per minute.

Immediate shipment from stock.

Full description and specification sent on request.

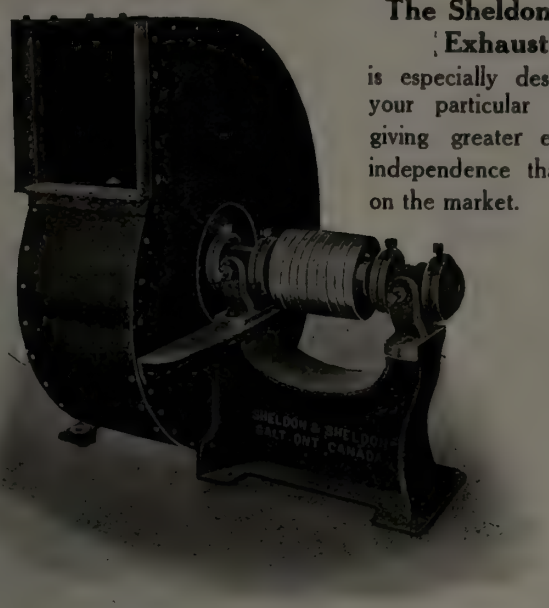
Canada Machinery Corporation, Limited

Galt - Ontario

BUILDERS OF HIGH GRADE WOODWORKING MACHINERY

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

is especially designed to suit your particular requirements, giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

Messrs. Ross & Greig, 412 St. James St. Montreal, Que. Messrs. Walker's Limited, 259-261 Stanley St. Winnipeg, Man.

Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.

Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.

THIS GUARANTEE PROTECTS YOU

We have such complete confidence in our sawmill machinery that it is all sold with the following guarantee.

These machines are guaranteed against defective materials and workmanship for the period of one year, and their proper and successful operation is also absolutely guaranteed. Should any part fail through defects, we will replace them free of charge, or should any machine not work properly, we will remove it at our expense, and refund any part of the purchase money which may have been paid to us.

You take no chances when buying our machines, and it is the only kind of machinery you want in your mill.

We build everything needed for a sawmill.

Let us get together

William Hamilton Company

Peterborough - Ontario

Morgan Machine Company

ROCHESTER, N. Y.

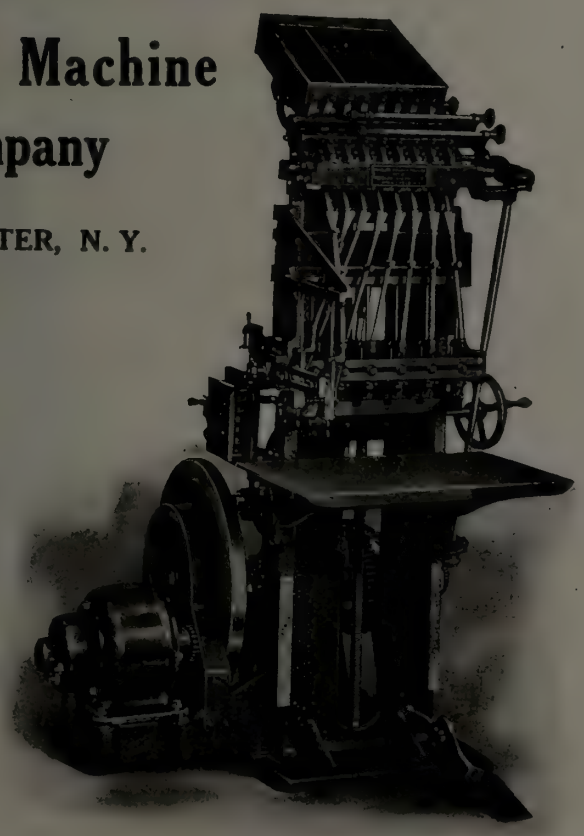
Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

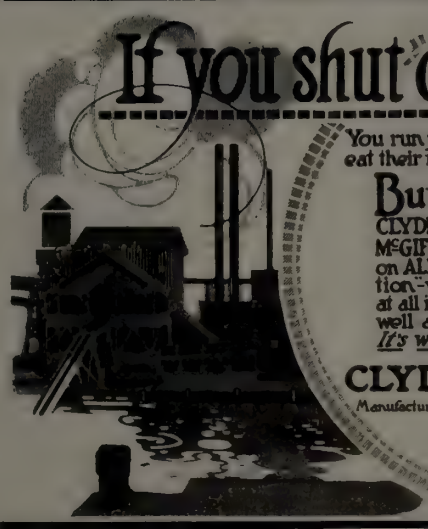


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N. Y.

If you shut down your mill



You run your *teams* into the stables to eat their fool heads off *and the feed bill is a dead loss.*

But when you shut down your CLYDE REHAUL SKIDDERS and McGIFFERT LOADERS you shut down on ALL expenses except depreciation—which actually doesn't happen at all if you grease the machines up well and run them in under a roof *It's worth considering!*

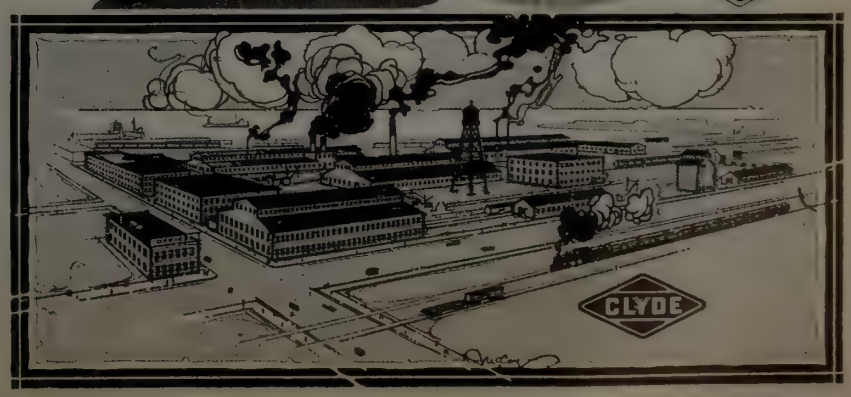
CLYDE IRON WORKS

Manufacturers of Machines for EVERY Logging Operation

· DULUTH · U·S·A ·

"Great Part of the Northwest"

CLYDE



Clarke's Clothing

For

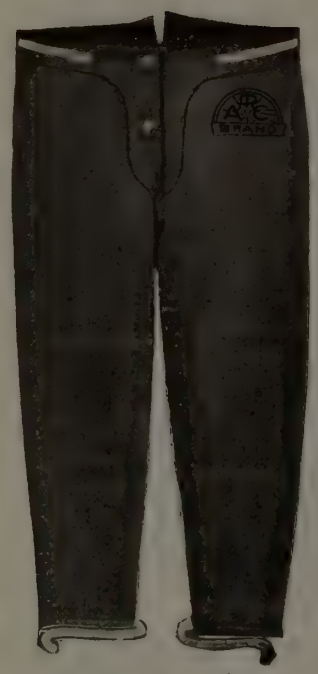
Lumbermen

The A. R. C. Brand of clothing contains every garment necessary for the complete outfitting of the lumberman for winter work in the woods.

Illustrated are a few of the A. R. C. garments. They are roomy in design, perfect in workmanship and are made of the best material.

Our illustrated catalogue contains full information about the A. R. C. line

Write us today.



Mackinaw Pants

The materials in these pants are the best that money can buy. The workmanship is on a par with our other goods.

Mackinaw Coats

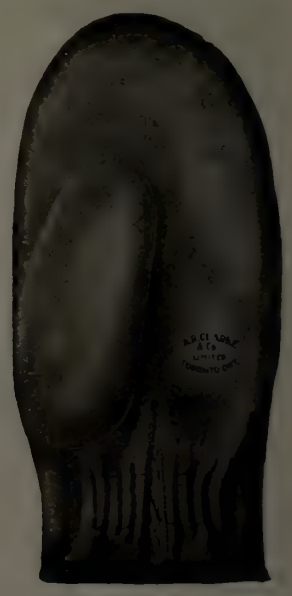
Well tailored from mackinaw cloth and suitable for street wear.

Plymouth Glove

The best made for all kinds of hard wear. Peccary hog leather is a favorite with lumbermen. The toughest and best wearing glove it is possible to make.

Bullhide Moccasins

Are steadily gaining in favor owing to their warmth and wear resisting qualities.



Pullover Mitt

Made in burro, sheepskin, horsehide, and peccary hog leathers. Specially adapted for lumbermen, rivermen and miners.

A. R. Clarke & Co.
Limited
Toronto

Montreal Winnipeg
Quebec St. John Saskatoon Vancouver

BERLIN RESAWS Assure More Profits—Every Hour of the Day, Every Day of the Week, Every Week of the Year.

Berlin Resaws Produce Economically

These resaws are especially adapted to Canadian Planing Mill and factory conditions. No. 341 has 54-inch wheels and tilting feed works. No. 342 is a 64-inch, short saw machine with large capacity and powerful feed works.

There's a Berlin resaw especially designed for your work. There are single verticals for light, medium or heavy duty and a twin vertical for long shook stock; the single horizontal and the twin horizontal for resawing short shook stock, besides the slab resaws. All Berlin band rip and resaws and band mills are simple in design and operation and easily kept in order. Whatever ripping or resawing you want to do can be done at lowest possible cost on a Berlin.

Easy to Operate

On Berlin resaws the conveniently placed operating devices make maximum results easy to obtain. That's why any average workman can successfully operate them and also why reduced cost is assured.

The wheel tilt and quick cross-line adjustments are especially conveniently placed. The top saw guide adjusts from the front of the machine; a throw of a lever changes the speed of feed. The rolls are positioned by a quick, accurate set works.

Easy to File For

Filers say that blades on Berlin resaws endure longer runs at fast feeds—that our very sensitive Knife-edge straining device is assurance against cracked blades. The saving made because of low upkeep cost of blades and machine is one reason for installing Berlin resaws. Before you decide on any particular resaw, investigate thoroughly the merit of Berlin "Quality" built band sawing machinery. Berlin resaws are working in many Canadian mills. See one in operation.

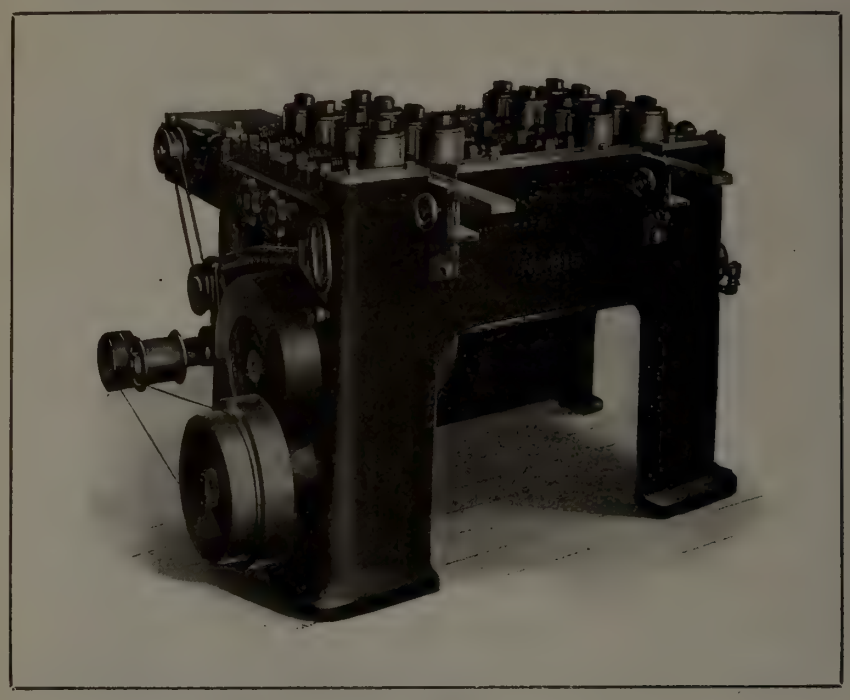
We'll send you complete data and the address of your neighbor user if you'll drop us a card request.

BERLIN MACHINE WORKS, LIMITED, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World

UNITED STATES PLANTS, - - - - BELOIT, WISCONSIN

Improved Box Board Matcher



16 driven feed rolls, 4⅛ in. in diameter, each one of which can be adjusted independent of all others.

4½ in. between centres of first and second pair; 5½ in. between centres of second and third pair (the cutters work between this pair) and 4¼ in. between centres of third and fourth pair.

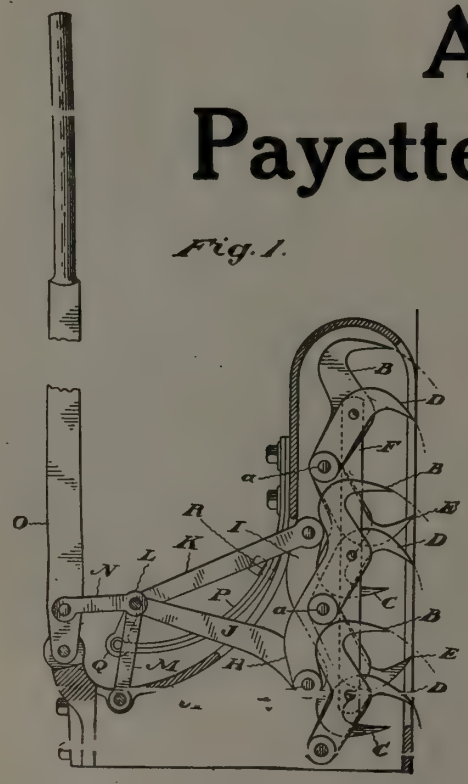
This Matcher is compactly and rigidly constructed with every part readily accessible and the operators are close together when working.

Catalogue gladly furnished which illustrates and describes many other machines built expressly for Box Factories.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN. U. S. A.

A Boon to Lumbermen
Payette's Famous Patent Mill Dogs
650 Sets already sold

Fig. 1.



BECAUSE

(1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer. P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.

P. Payette & Company

Engineers and Machinists

Penetanguishene, Ontario

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash. North Western Sales Agent

SCANDINAVIA

has for many years proven its service giving qualities. It is equally reliable for all direct drives whether straight or crossed. It has a good surface for gripping the pulley, runs true and exceptionally straight. It will pay you to investigate this long lived dependable belt.

Write for Belting Book "THE MAIN DRIVE"

Federal Engineering Co., Limited
Toronto - Montreal

This engine is 13½ ins. x 18 ins. and weighs 35 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run. Oil or coal burning.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

Grey Iron Castings—any size or shape—ordinary or intricate—made promptly. New foundry, splendidly equipped. We would be pleased to quote on castings—singly or by contract. We also make drop forgings of all descriptions.

MAY WE SEND YOU SPECIFICATIONS?

Canadian Locomotive Company, Limited, Kingston, Ont.
Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

A Lumber Piling and Unpiling Machine

A Hilke 30 ft. PILER working in the yard of the Shevlin-Clarke Co., Limited, Fort Francis, Ontario.

This machine will pay for itself from one to six times per annum, all depending on the scope of its opportunities.

It reduces by half your cost of piling and unpiling lumber.

It saves half your cost of alley floors or roads.

It reduces by half your number of pile bases.

It cuts squarely in two your costs of roofing lumber.

It saves just half your yard space and this always means much even where land is very cheap, because it costs money and lots of it to haul lumber round a yard.

It takes lumber down from high or low piles with perfect freedom from breakage or injury.

It sets the pace for your men and helps them do much work with little labor.

It is as mobile as the men who operate it and when placed in front of a pile is instantly ready for work.

It removes at once and forever the need of using elevated tramways with their great first cost, impaired circulation and imperfect drying below their surface.

It is a maker for efficiency because it is itself so efficient that it naturally turns your mind toward other yard economies of which there are usually many never before observed.

Patented in the United States and Canada by H. C. Hilke.

Built by

The Hilke Stacker Company

No. 1 Broadway, New York City, N. Y.

Let us send you a catalog.

Radcliff
Solid Tooth
Saws

MADE by men who have made a special study of saw construction and steel tempering.

The steel in Radcliff saws is specially tempered to maintain a keen edge and high tension. It is sufficiently pliable to avoid breakage, yet is rigid enough to be economical in effort.

Write for our catalogue of solid and inserted tooth saws, mill supplies, etc.

Radcliff Saw Mfg. Company, Limited
TORONTO

The Mark THE E. LONG MANUFACTURING Co. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

LIVE ROLLS

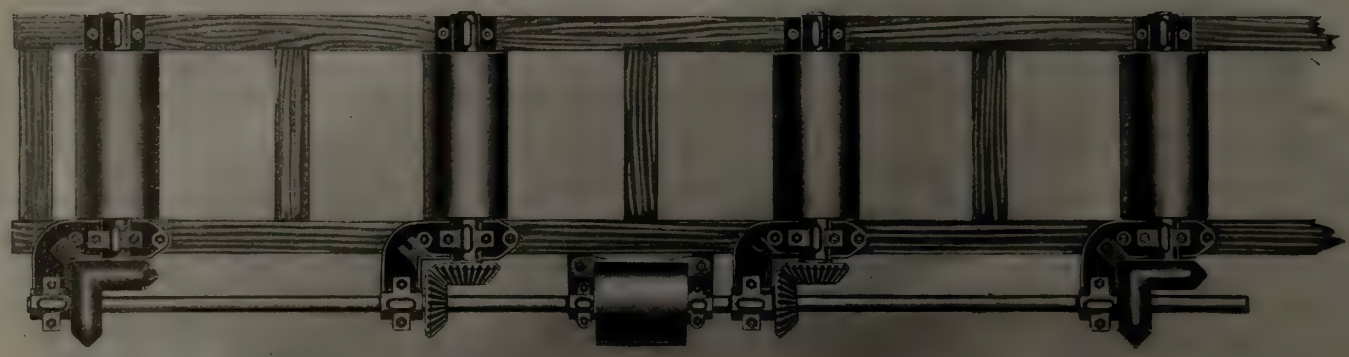
The cut includes our Reversible Friction Live Roll Drive; a simple device, the life of which is greatly prolonged because of the perfect alignment insured by the heavy, cast Yoke.

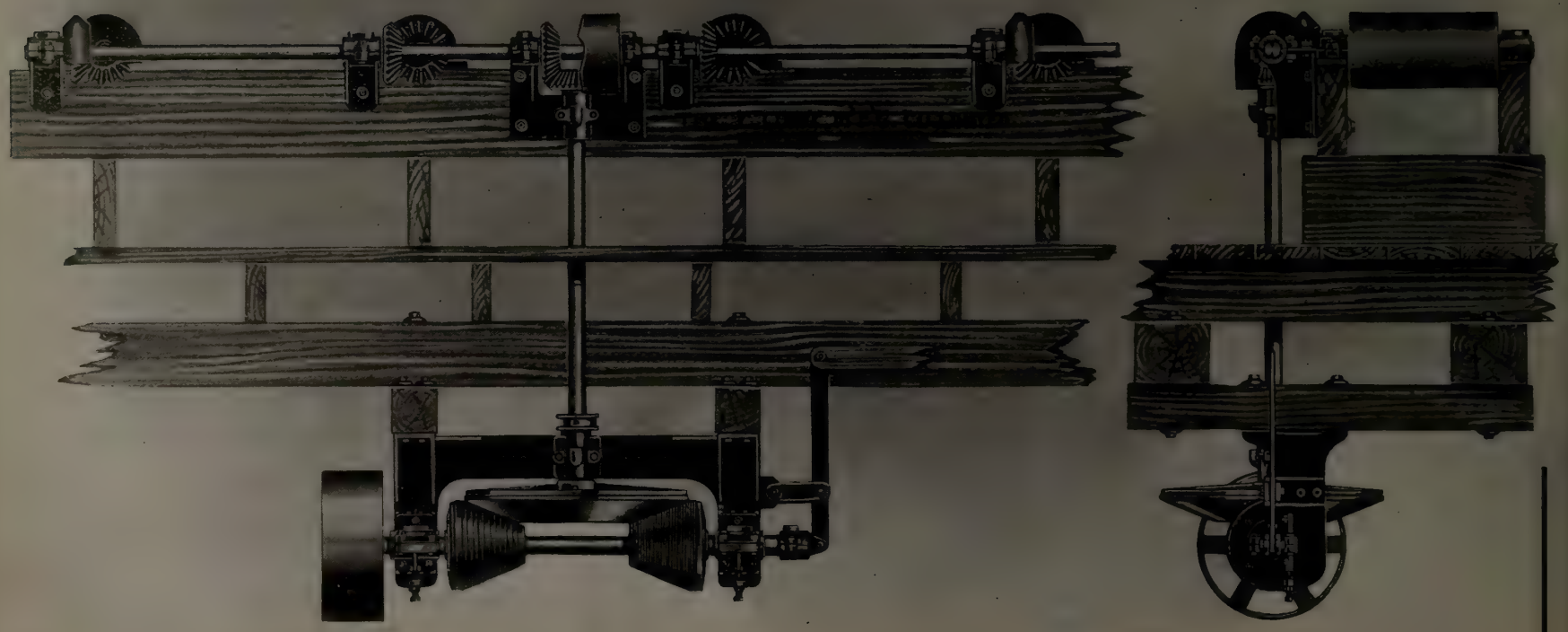
MADE IN ALL SIZES—TELL US YOUR REQUIREMENTS.

The E. Long Mfg. Co., Limited, Orillia, Canada

AGENCIES:

Vancouver—Robt. Hamilton & Co.
Calgary and Edmonton—Gorman, Clancy & Grindley, Ltd.
Winnipeg—The Stuart Machinery Co., Ltd.
Montreal—Williams & Wilson, Ltd.





The Engineer's Smile

"'Happy Days' is what the boys around the mill call me ever since we started the new engine running. If I feel good can you blame me? Instead of having to listen to the daily holler for "More Power!" every time they get a big log on the carriage, all I have to do is to keep the oil cups full and she runs along like a watch from whistle to whistle. With *everybody* satisfied—I should worry!"

Waterous Engines

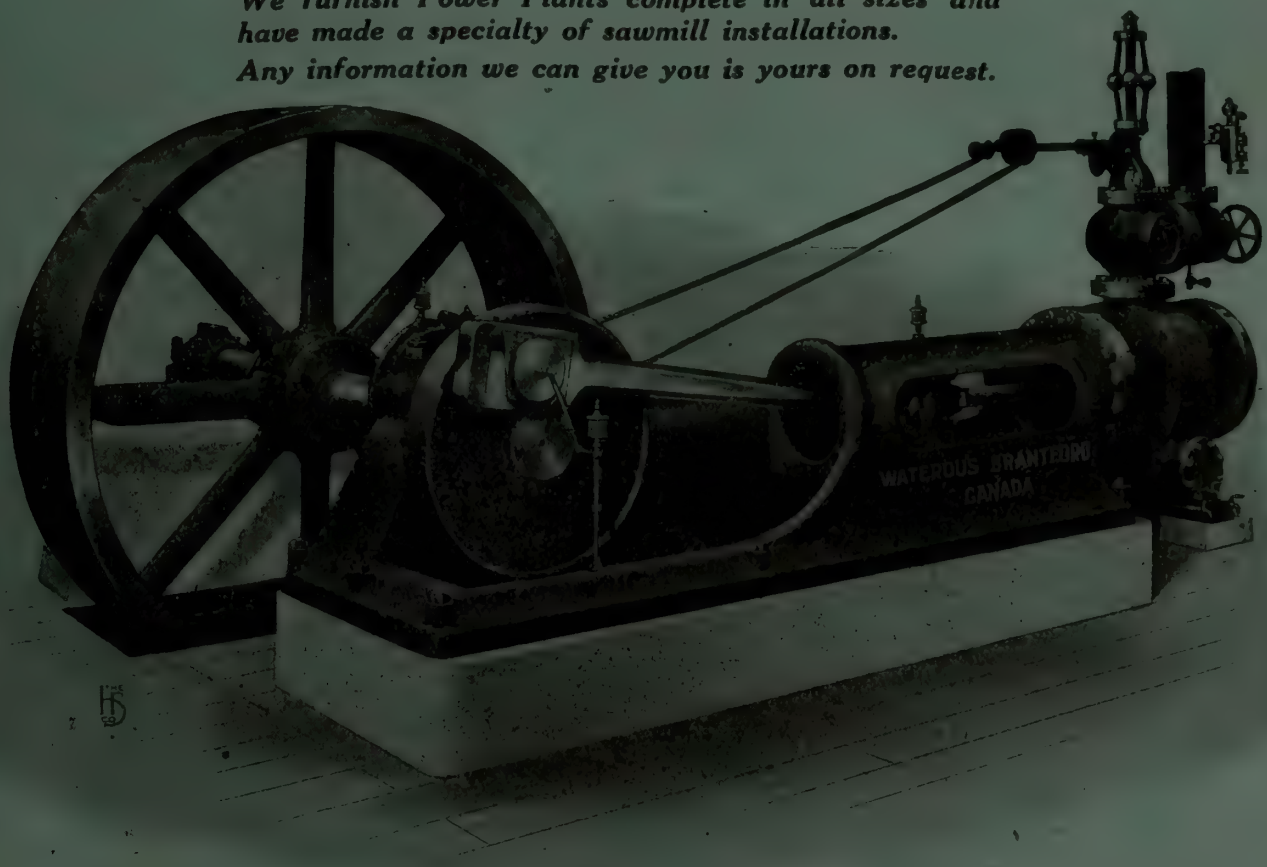
Make your choice of an Engine for the Sawmill the **WATEROUS SIDE CRANK SAW MILL ENGINE.** It is built for the work. With strength and simplicity it combines the ability to be on the job all the time.

There is nothing to get out of order. Parts are few, are sturdily built of the best of materials and are easily gotten at for oiling and overhauling.

All that is necessary to keep the Engine in tip-top shape is an occasional wipe-down and a dose of oil on the wearing surfaces.

We build both Single and Twin Engines of this type in sizes up to 600 H.P. If you want an engine that will give you absolutely reliable service, continuously, under all sorts of conditions, ask us for catalogue and prices.

We furnish Power Plants complete in all sizes and have made a specialty of sawmill installations. Any information we can give you is yours on request.



The Waterous Engine Works Co., Limited

Brantford, Canada

H. B. Gilmour, Vancouver, B.C. **Branch—Winnipeg, Man.**

$5,000,000.00
worth of mixed metal sold annually.

"FROST KING" METAL

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

"Maple Leaf" Brand

Stitched Cotton Duck Belting

A trial Belt will convince you. Write for prices and samples.

Excels all others in economy, strength, efficiency and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply **"Maple Leaf"** belt, a light double leather, and a 6-ply rubber belt, showed that our **"Maple Leaf"** Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts
Are the Best on the Market.

"Maple Leaf" Belt Dressing is the best for all kinds of belts.

Dominion Belting Co., Limited

HAMILTON - ONTARIO

Branch: Montreal—Office 51 Duluth Building

The J. C. McLaren Belting Co.

Limited

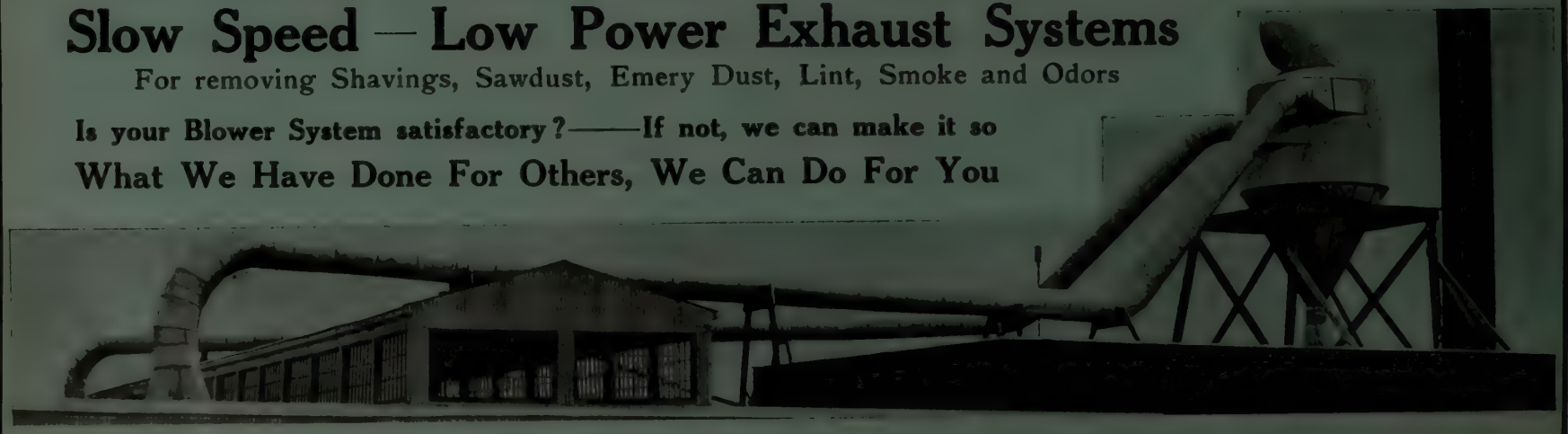
General Mill Supplies **MONTREAL**

Slow Speed — Low Power Exhaust Systems

For removing Shavings, Sawdust, Emery Dust, Lint, Smoke and Odors

Is your Blower System satisfactory?——If not, we can make it so

What We Have Done For Others, We Can Do For You



Our System recently Installed in Largest Box Shook Factory in Ontario.

TORONTO BLOWER CO., Toronto, Ont.

Vol. 34 Toronto, October 1, 1914 No. 19

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

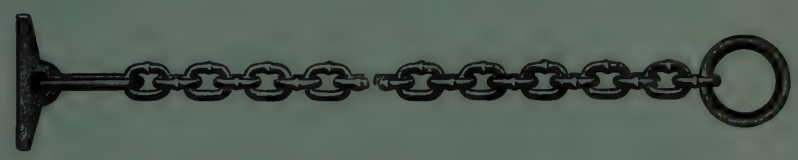
Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.



Electric-Welded Boom Chain

25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Ready for Instant Use

A Fairbanks-Morse Gasoline Fire Engine will save its cost many times in an emergency.

FAIRBANKS-MORSE PUMPS AND MOTORS

Dicks Balata Belting—Valves—Steam Goods—Saw Mill Supplies. They are all of the best and are in daily use by the largest Saw Mills in Canada.

The Canadian Fairbanks-Morse Co., Limited

St. John, Montreal, Quebec, Ottawa, Toronto, Hamilton, Fort William, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Victoria

UNLINED LINEN FIRE HOSE (Circular Woven and Seamless)

"Underwriters Insurance" Brand registered Trade Mark.
"Red Line" and Red and Blue Line and Plain Grades.

MADE to conform to the requirements of the Associated Factory Fire Insurance Companies and is approved and accepted under every high-grade flax-hose specification.

GUARANTEED WATER-PRESSURE 500 LBS. PER SQUARE INCH

F. REDDAWAY & COMPANY 595 St. Paul St. MONTREAL

Sole Makers of

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

STOCKS 2" TO 24" WIDE

Nothing but the best satisfies us, what about you?
Try us when next in the market for a new pump.

The Smart-Turner Machine Co., Limited

Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

Alphabetical Index to Advertisers page 62

For Quick Shipment Send Your Orders to Us.

THE FOLLOWING DRY

Pine and Spruce Lumber

IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 “	1 x 10″	“
50 “	1 x 7″ and up	“
10 “	1¼ x 7″ and up	“
10 “	1½ x 7″ and up	“
2 “	1½ x 12″	“
5 “	3 x 6″ and up	“

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

Clear and No. 1 Spruce

10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 “	1 x 7″	“
4 “	1 x 8″	“
5 “	1¼ x 8″	“
3 “	3 x 10″ and up (mostly 11″)	“

Also “BEAVER BRAND” White Cedar Shingles—full count.
Shipment by rail or water.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada

VIEW OF OUR MILL AND BOOMS

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Manufacturers of

Lumber, Lath and Dimension Timber

Planing Mill

Dry Kiln

Humboldt Redwood

Humboldt Redwood is cut from the forest of North California. Its qualities suit it to almost every purpose for which lumber may be used. It will not check, is fire repelling, beautifully figured and always clear, free from pitch, easily worked, will not shrink, takes finish equal to mahogany and is in every other way a most desirable wood for all purposes.

Its Uses

Among the uses of Humboldt Redwood we mention: Sash, doors, and trim, boats, furniture, toys, pattern lumber, outside building trim, car siding, cooperage, hot bed stock, refrigerators. tanks and silos, buildings, exposed beams, clap boards, lattice, screen doors and windows, theatrical scenery, incubator and beehive stock, turned work and a variety of other uses.

Write us for prices and literature.

Canada Lumber Sales Co., Limited

145 St. James Street, Montreal

Winter Sawed Hardwoods Ready for Shipment

4/4 Log run Maple	350,000 ft.	6/4 No. 1 C.&B. Maple	60,000 ft.
5/4 No. 1 C.&B. "	40,000 ft.	8/4 No. 1 C.&B. "	200,000 ft.
4/4 Log run Beech	250,000 ft.		
6/4 "	15,000 ft.		

We have recently installed a complete planing mill and are now in a position to do dressing of any kind on short notice.

Spruce and Hemlock Timbers a Specialty

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

Now Ready to Ship

Longford Hemlock:

150,000 ft. 1″ No. 2 Hemlock
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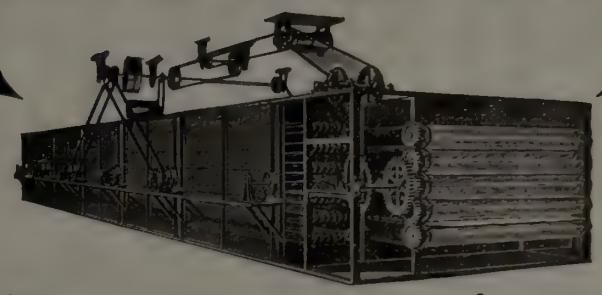

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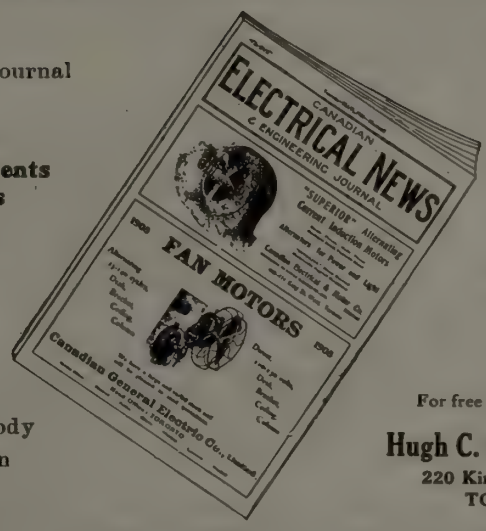

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1/30″ SLICE CUT VENEER
1/20″ SAWED VENEER
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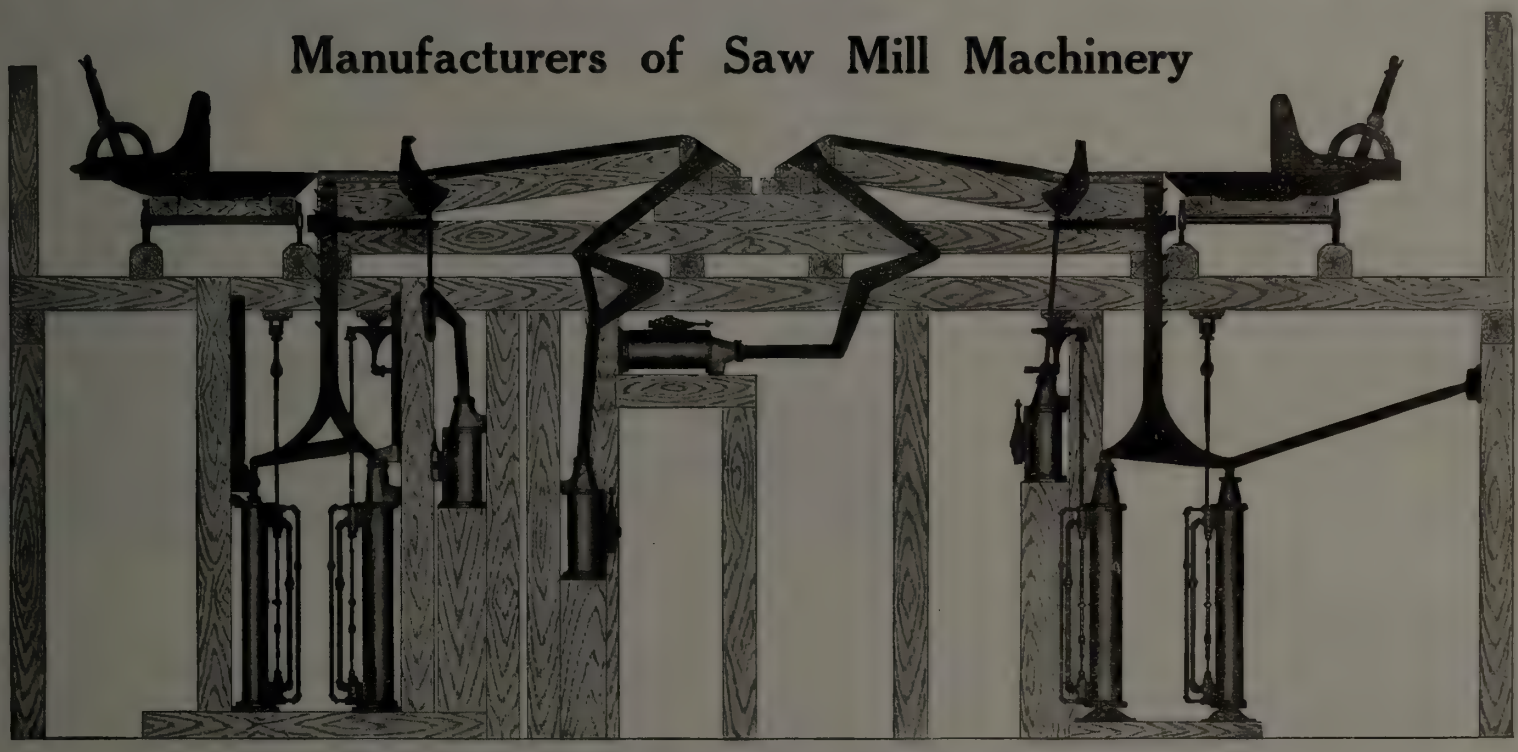
2″ BAND SAWED LUMBER

Specialty:

QUARTERED WHITE OAK

WM. E. HILL CO. - KALAMAZOO, MICH., U.S.A.

Manufacturers of Saw Mill Machinery



The Best Steam Log Deck Machinery on the Market

At left of cut is shown our Stationary Steam Nigger, Double Connected Steam Log Stop and Loader and Kelley Steam Kicker. At right of cut our Oscillating Steam Nigger, Direct Connected Steam Log Stop and Loader, and Kelly Steam Kicker arranged horizontally.

Established 1881 **Incorporated 1912**

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made.

Quality Talks

Arkansas Soft Pine Qualities talk profits to retail lumber merchants. These talking qualities of our products have convinced dealers. Today the dealers, to whom we were talking our lumber, a year ago, are talking it to their customers.

Here is one of the talks:

"For the living room finish you should use Arkansas Soft Pine. Do not be deceived into thinking this is a cheap wood and class it as ordinary yellow pine. It is different. It costs more than the ordinary yellow pine, but it's worth it. 'We have hunted the south over for a fine finish for just such a house as this.' It is more easy to work than oak or other hardwoods but when properly stained will give a pleasing and desirable effect; in fact better than most hardwoods. Do the hall in panel work of the same wood but stain it walnut for the massive, solid effect."

You need not "hunt the south over." There exists one original source of supply. Arkansas Soft Pine may be procured from the concerns that make it. It will make money for you as it is making money for others.

Gates Lumber Company	Wilmar, Ark.
Southern Lumber Company	Warren, Ark.
Stout Lumber Company	Thornton, Ark.
Valley Lumber Company	Reader, Ark.
Wisconsin & Arkansas Lumber Company	Malvern, Ark.
Arkansas Land & Lumber Company	Malvern, Ark.
Arkansas Lumber Company	Warren, Ark.
Cotton Belt Lumber Company	Bearden, Ark.
Crossett Lumber Company	Crossett, Ark.
Eagle Lumber Company	Eagle Mills, Ark.
Edgar Lumber Company	Wesson, Ark.
Fordyce Lumber Company	Fordyce, Ark.
Freeman-Smith Lumber Company	Millville, Ark.

Master Equipment

Belting, Hose and Packing that Earn Their Way

In the sawmill Belting is put to unusual tests. As hard knotty logs hit the saw a terrific strain is thrown on the belt. Slippage means lost power. Lost power means lost efficiency. And when a belt breaks it means more than the cost of a new belt. It means loss of output and salaries that have to be paid regardless.

Realizing this, men are buying more and more Goodyear Belts for the downright service they give. No Goodyear Belt is ever made to meet a price or a standard. Each belt is made to set an unusual service standard.

There are Goodyear Belts for every exact requirement in the sawmill. These range from Belts for the main drive to Belts for small pulley machines.

"Extra Power"

This is the Master Belt for the main drive—edger and planer. It is wonderfully strong. In fact this Belt shows the highest friction pull of any belt we have ever tested—fully 10 per cent. better than the next best high quality belt.

"Extra Power" is made of the heaviest and strongest duck of any Belt we make—all laboratory inspected, tested and passed. The stretch is taken out in the making. The strong serviceable plies are unified by the highest grade rubber friction. There is maximum precaution against ply separation. All Goodyear Belts have the famous Sealed Seam and are cured under a heavy, carefully regulated hydraulic pressure, determined by the service. "Extra Power" is made in various widths—made "endless" when desired.

"Imperial"

This is a Goodyear Belt designed especially for high grade speed and small pulley conditions. It is a splendid Belt for trimmer work. Seamless and Goodyear made for its particular purpose.

GOODYEAR
TORONTO
Belting, Hose, Packing

Hose and Packing

Goodyear Steam Hose and Packing are made for exact specific services. There is a particular Goodyear product for every particular need. Exact Goodyear methods insure the best for your money. Goodyear Service means economy.

Ask These Men Buy equipment on a service basis. Back of every Goodyear product is fifteen years successful experience. At the Goodyear Bowmanville, Ontario, Factory are experts who study actual working conditions long before any Goodyear equipment is made. Consult these men when you are about to buy Belting, Hose or Packing. Their advice, freely given, will save you money and insure the service you are seeking. Costs nothing to ask questions.

The Goodyear Tire and Rubber Co. of Canada, Limited

Head Office—TORONTO, ONT. Factory—BOWMANVILLE, ONT.

Branches at – Vancouver, Edmonton, Calgary, Regina, Winnipeg, Hamilton, Ottawa, Montreal, St. John, N.B.

MAPLE LEAF SAWS

MAPLE LEAF SAWS, **"THE PROVEN BEST,"** absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

Shurly-Dietrich Co., Limited, Galt, Ontario

Branch: VANCOUVER, B.C.

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

POWER PLANT

2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The
Parry Sound Lumber Co.
Limited

26 Ernest Avenue, TORONTO, CANADA

SPUD

for Bark Peeling, fills a long felt want.

Made of Forged Steel with substantial Sockets uniform in size.

Prompt shipments in any quantity desired.

The
Thomas Laughlin Company
Portland, Maine, U.S. A.

We also manufacture a large line of CONTRACTORS' SUPPLIES and MOTOR BOAT FITTINGS.
If a dealer, ask for our 450 page catalogue.

Do You Sell To Saw Mills?

Here's a letter from a big concern who reached the saw mills of Canada through the "Canada Lumberman and Woodworker." Follow their good example.

WM. E. HILL CO.

Saw Mill Machinery

COMPLETE EQUIPMENTS FOR MILLS OF ANY DESIRED CAPACITY

ESTABLISHED 1881.
CAPITAL $225,000.00.

KALAMAZOO, MICH. Sept. 4, 1914.

Canada Lumberman & Woodworker,

Toronto, Canada.

Gentlemen:-

We take great pleasure in handing you herewith our order for twenty-four half page advertisements to appear in your publication to start with your September 15th issue.

In giving you this business, we wish to state that the advertising which we did with you last fall produced very satisfactory results. For this reason we believe that your paper must be read by the Saw Mill men throughout the Dominion. And therefore we anticipate that the present advertising will be very beneficial to us.

Yours truly,

HS/ET

WmE Hill Co.

SIMONDS
STANDS
FOR
STANDARD
IN
SAWS

PROFIT

In the use of a Saw to obtain profit by lumber cutting, everything tending toward that Profit must be considered.

Important points are: how long a Saw will cut with each filing; how straight a line a Saw will cut; how small a kerf a Saw will cut; how little delay for fitting up a Saw will occasion; and how long a Saw will wear before a new one must be purchased.

It is by excelling on these points that Simonds Saws have become the lumberman's standard. Write for catalog and prices on any size Band Saw, Solid or Inserted Tooth Circular Saw, Gang Saw, Shingle Saw, or Planer knife.

Simonds Canada Saw Co., Ltd.

St. Remi Street & Acorn Avenue
MONTREAL, QUE.

98 Powell, cor. Columbia Ave. 55 Water St.
VANCOUVER, B. C. ST. JOHN, N. B.
(In the United States—Simonds Mfg. Co.)

Canada's Best

The Plant the Good Doors Come From

Here in this modern and completely equipped plant we are making doors, sash and trim of the very highest grade. We will be pleased to quote close prices on anything you may need in our line.

Write for our new catalogues and price lists.

Benson & Bray, Limited, Midland, Ont.

Box 416 **Telephone 141**

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President.
THOS. S. YOUNG, Toronto, General Manager.

OFFICES AND BRANCHES:

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NEW YORK - - Tel. 3108 Beekman - - 931 Tribune Building
CHICAGO - - Tel. Central 6403 - - 1155 Peoples Gas Building
LONDON, ENG. - - - - - - - - - 3 Regent Street, S.W.

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.

Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N.Y., under the Act of Congress of March 3, 1879.

Vol. 34 **Toronto, October 1, 1914** **No. 19**

England Needs Our Mining Timbers

Reference was recently made in the Canada Lumberman to the possibility of an extensive market in Great Britain for pit props and mining timber, as a result of supplies from Sweden, Norway and France having been reduced by the war. The Timber Trades Journal of London, in a recent article, says:—"Unless colliery owners can obtain considerably enhanced supplies from Sweden, Norway, and France to eke out what can be obtained in the United Kingdom, we confess to a certain amount of doubt as to how the demand is to be met. The supply of these goods from Norway and Sweden is barely half what it was ten to twelve years ago, so that the immediate outlook from these countries is not encouraging, and a heavy rise in values is hardly to be avoided. It must, however, be taken into consideration that ample supplies can be obtained in Norway and the Southern Provinces of Sweden, at a price. The question is too obscure at present for us to express an opinion as to what that price will have to be. Much will depend as to whether the British Fleet is able to keep the Upper portion of the Baltic clear of German cruisers, and as to whether props, etc., are to be considered contraband or not. What is termed International Law, as to what is absolute contraband, and what is conditional contraband, is in so chaotic a state, that each hostile power interprets the cases that crop up in this connection, to suit its own purposes."

Some lumber manufacturers in the Southern States have no misgivings as to the results of the war in Europe upon their business. Mr. Martin Lindsey, president of the Escambia Mill Company of Pace, Fla., is keeping his mill running on full force and is quoted as saying; "the big armies tearing up bridges and destroying thousands of buildings on the continent will need lumber and need it quickly when this war is ended, and furthermore, I believe that the war will end shortly."

"Business as Usual"

There is nothing particularly warlike in the slogan, "Business as Usual," but the principles for which it stands are playing a part in the affairs of the Empire second only in importance to the operations in the actual theatre of conflict.

The vast resources which make ultimate British victory certain were built up by men whose close attention to business was as productive for Empire as the dauntless courage of military and naval heroes.

Considering the present safety of trade routes, and having in mind the glorious achievements of British arms during the first month of the war, there is no ground for panic. There is every encouragement for work and confidence.

The general consensus of opinion is that this war will lead to the permanent advantage of British trade. In this advantage Canada must obtain a proportionate share. Events move quickly. Opportunity comes and is gone. Already British and United States manufacturers are concentrating their attention upon the chances afforded them of establishing themselves in colonial and neutral markets in certain lines of trade in which our enemies have hitherto transacted large business.

This is a time of testing. False steps at this juncture will imperil us individually and weaken us nationally in the commercial world. The qualities we must produce under test are perseverance, confidence, and stability. Perseverance will arise out of a determination to stick to the guns of commerce; confidence will assert itself naturally; stability will be maintained unconsciously.

The Dominion Government and other authorities have committed themselves to the policy of continuing public works. These public works must be supplemented by private enterprise. Sacrifice at such a time is unavoidable. It will be felt least if distributed evenly throughout the whole community. With factories running and constructional operations in progress, the sacrifice will be reduced to a minimum.

The lumbering industry covers a wide field and gives employment to a vast amount of labor. Lumbermen, in common with all other employers of labor in Canada today, have a great responsibility to meet. Example counts for much. Pessimism spreads —so does optimism. An optimistic lumberman can do much to keep trade moving by the encouragement of his own attitude and by intelligent argument and advice inspired by confidence and the spirit of "Business as Usual." Remember that every contract placed, every sale or purchase made now, serves to increase the general measure of confidence and that every retrogressive step exercises an adverse influence upon the community at large.

Are the Banks Helping the Lumber Trade?

In the Canada Lumberman of September 15th an editorial article appeared dealing with the attitude of the banks towards the lumbering industry since the outbreak of the war. What we said at that time has been amply substantiated by the utterances of the daily and periodical press throughout Canada and the banks of Canada are now well aware of the fact that the course which many of them adopted is meeting with disapproval and severe criticism in many quarters. We have been accustomed to speak highly of the Canadian banking system and to point out many of the features which render it one of the most flexible and successful banking systems in the world, and yet, now that it is put to the supreme test of fulfilling its most important mission, it, or rather those who are in charge of the policies of some of the important Canadian banks, are evoking public censure of a very strong type.

There has been a practically unanimous assertion on the part of manufacturers and business men throughout Canada that we have a great opportunity to seize and a great duty to perform in connection with developing our resources during the present crisis and helping to furnish the raw materials and manufactured articles which the outside world is at present so greatly in need of; the supply of which from the great producing countries of Europe has been cut off. Our government realized this and quickly passed legislation, calculated to assist the banks in doing their share to enable Canadian industry and commerce to take advantage of these opportunities. The action of the government was also prompted to a large extent by a desire to prevent commercial disturbance resulting from any interruption in the circulation of money. The legislation introduced by the Minister of Finance is exceptionally liberal towards the Canadian banks. It amounts to the government standing behind the banks individually by discounting those securities upon which they cannot at present realize, and issuing Dominion notes to the banks in place of the securities. The banks moreover, are given permission to issue bank notes, not only to the full amount of their paid up capital, but far in excess of it. In other words, the credit of the country has been placed behind the banks to the utmost limit. There was only one object in this, namely, that the banks in turn might realize their responsibility and their power to come to the assistance of the industry and commence of the country and so prevent anything in the way of business stagnation. And yet many business men are complaining that the banks will not give them such assistance as they feel entitled to. Moreover, it is the general belief that now conditions are favorable for reviving business activity if the assistance of the banks can be secured. One hears this statement every day and also hears many a business man assert that the banks have not done their duty.

The lumbering industry is one of the great industries of Canada, upon which depends the employment of thousands of Canadians, whose employment further, means business activity in many other industries and lines of commerce. Moreover, the lumbering industry is in the presence of a great opportunity and at the same time a great crisis. Markets in which Canadian lumber formerly met with keen competition are now crying for the product of the forests of Canada. Stocks of lumber in Canada are small. Next year there will be an unprecedented demand for lumber, unless the opinion of nearly every lumberman to-day is mistaken. Many a successful lumber manufacturer to-day has come to the conclusion that any stocks which he can take out of the woods this winter will be a good source of profit to him next year. Under these conditions one would expect the banks at least to give the usual amount of assistance to operators in the woods. We hear from many quarters however, that operators have been told by the banks to reduce their operations during the coming winter. Exporters who take their shipping bills to the bank have been refused money upon them, although they had orders, stock, and vessels waiting to ship it. Many builders have been obliged to stop the erection of houses, office structures and warehouses, because they have not been able to secure the customary assistance from banks and loan companies.

Is there any call for such a policy? The action of the government in coming to the assistance of the banks clearly announces that there is none. The opinion of every business man one meets is to the same effect. Lumbermen who have sufficient private means to do so are backing their judgment by purchasing stocks of lumber and are looking forward to profitable results. We hear everywhere that there is a great opportunity in front of the people of Canada to-day and yet we hear also that many are prevented from taking advantage of it because they cannot find the necessary sinews of commerce. The opinion is expressed widely throughout the business community that the banks have gone beyond the limit of caution and that either they should alter their attitude, or the government should step in and see that the advantages contemplated when assistance was given to the banks, reach the people for whom they were really intended.

Frequent bitter criticism has been directed against the banks of late in this connection. Matters possibly have not developed far enough for the banks to work out a definite policy and it may be that before long they will see the situation in much the same light as their critics see it to-day. But it is the urgent duty of the banks to act quickly and not let their policy lag behind the development of events. The people of Canada expect the banks to take a prominent place in the campaign for business revival. The surest method of doing this will be to adopt such policies as will encourage legitimate and profitable lines of business to reach out and grasp the opportunities which are now presented.

In connection with this it is interesting to note the views expressed by an English M.P., Mr. L. G. Chiozza Money, in the London Daily News and Leader. At the end of an article upon the situation in England, entitled "Wanted Common Sense Moneylending," the writer says:—"There need be difficulty in the matter only as long as we choose that there shall be difficulty. It would be the simplest possible matter for the state to take this matter of credit into its hands, and to back every individual worth backing in the country. The state might act either independently of the existing banks or through them. If the banks would not afford facilities with backing from the state, then it would be quite easy for the government to show the banks that it could get on without them. It is all very well to talk about capturing the £300,000,000 worth of German export trade, which has been cut off by our navy. If it is to be captured there must be not only manufacturing enterprise exhibited, and science called into aid, but there must be liberal banking facilities afforded. Our chancellor of the exchequer has already, in the House of Commons, warned the banks that they must rise to a great occasion; our banks, however, are so exceedingly conservative and have been such a hindrance to our trade in time of peace, that one must not be surprised that they are not doing their duty in time of war. It is for the government to decide whether they will stimulate the banks to action by some guarantee or backing, or whether they will proceed independently of them."

It is interesting to recall, under present conditions, the effect of the Franco-Prussian war in 1870 upon the timber trade, says Mr. J. H. Kerner-Greenwood in an English exchange. "At that time the Baltic ports were not all closed, whereas now they are. Only the German ports were closed, and the prices of timber went up with a tremendous leap, but came down after two months' time to quite a normal figure, and prices did not again advance. The scarcity of European timber was counterbalanced by the importation of more American spruce and pitch pine. Some of your readers will probably know that good spruce is quite as useful for building as white deal, and architects would do well to place an alternative clause in their specifications for best quality spruce to be used, because we cannot expect to be taking any timber from Sweden or Finland for another twelve months, although it is possible that the fortunes of war might clear the way in less than a month."

Canada's exports of forest products during July, 1914, were valued at $5,097,065. In the corresponding months of 1913 and 1912 the values were $4,938,716 and $4,484,675 respectively. For the twelve months ending July the totals were as follows:—1914, $43,400,015; 1913, $43,972,612; 1912, $41,092,560.

Effect of the War Upon Great Britain's Lumber Trade

The possible effect of the war upon the lumber trade of Great Britain was briefly and clearly indicated in an article recently published by The Timber Trades Journal, London, England, from which we reproduce the following extracts:—

"At the commencement of a great war like the present it is manifestly impossible to do more than trace the broad outlines of its effect on the supply of building and mining timber to this country even for the immediate future. If we turn first to the requirements of soft woods for building purposes we find that, according to the Board of Trade Returns, we imported in 1913 of sawn or split, planed or dressed wood:—

From Russia (including Finland) ..	1,018,892	Ptbg. Stds.
From Sweden	415,454	" "
From Norway	89,278	" "
From United States	154,725	" "
From Canada	291,375	" "
From Other Countries	41,226	" "
Total	2,010,950	Ptbg. Stds.

"According to the Board of Trade Returns the quantities of sawn and planed wood imported up to the end of July this year were as follows:—

From Russia (including Finland) about	316,986	Ptbg. Stds.
From Sweden about	162,874	" "
From Norway about	41,387	" "
From United States about	72,607	" "
From Canada about	105,946	" "
From Other Countries about	26,158	" "
Total (say)	725,958	Ptbg. Stds.

"Therefore we may calculate that we shall require further before the summer of 1915:—

From Russia (including Finland) about ...	701,906	Stds.
From Sweden about	252,580	"
From Norway abdut	47,891	"
From United States about	82,118	"
From Canada about	185,429	"
From Other Countries about	15,068	"
Total about	1,284,992	"

"This quantity of 1,284,992 standards appears a formidable total for the market to be deprived of under the supposition of a normal consumption and, if there were no compensating features, would portend a very heavy increase in values. Under the presumption, however, that sawn and planed wood will not be held as "conditional contraband of war," and that the British Fleet will be able to afford efficient protection to our Flag on the Atlantic, the Upper portion of the North Sea, and the White Sea, there is reason to believe that the increase in cost of soft woods may be kept within limits, which, if sufficiently onerous, will not altogether stop building operations.

"It may be taken for granted that Canada, the United States, and Norway will be able to send us full supplies, and the same is the case with the White Sea, if the drain of men from the last-named district permits of sawing and loading being carried on to any appreciable extent. The extent of the advance in prices will be largely determined by the position in the White Sea. If the shippers there can obtain labour they will naturally strain every nerve to get their goods away. An advance of £2 to £3 per standard on the normal f.o.b. value is quite likely to be realizable, and somehow or other, by the transfer of the older hands that have passed the mobilization age, from the mills closed in other parts of Russia, or otherwise, the White Sea mills may be kept running. The annual shipment of sawn wood from the White Sea mills is fully 300,000 standards, of which a very large proportion for the present season remains unshipped, probably more than half, and which would go a good way to save the situation, if available.

"As regards supplies from St. Petersburg, Riga, and other ports of the Russian Baltic Provinces, it is doubtful whether our Admiralty will be inclined to risk our heavy battleships and cruisers in the narrow and shallow waters of the Baltic in the dark autumn nights, at all events not until our Navy is able to secure a decided preponderance in the North Sea, so that it will hardly be prudent to calculate on any appreciable quantity of sawn wood from there this year, unless the war should be finished quicker than we anticipate. The same reasons apply with equal, or even greater force, to Finland.

"Sweden remains. As to this country there seems to be no valid reason why shipments of wood goods in Swedish or other neutral bottoms should not be made as usual. Since Great Britain declared war, shipments to that country have ceased, for fear of capture, but as the Swedish Government has arranged a scheme whereby this risk can be covered, it is to be hoped that shipments to the United Kingdom may become feasible again at an early date. If this turns out to be the case, and the White Sea stocks can be got to market, the inevitable advance in c.i.f. values for sawn and planed wood ought not to be ruinously heavy. It must be borne in mind that Germany, France and Belgium will be partially out of the market in the meantime, and our consumption also considerably reduced on account of the enhanced prices and the partial stagnation of trade. The scare which caused Swedish shipowners to stop communications from Gothenburg to the North-East coast of Britain (and likewise to the West coast and Ireland) was excusable, but the want of coals and certain other commodities will force a restarting of the regular services, when the war risk question is settled; more especially when the Swedes see what a rich harvest the Norwegians are securing by keeping open their ports on the West coast of that country. Were prices for sawn and planed wood to rise over £2 10s. per standard, it will pay some of the Swedish shippers in the Sundswall district to send the better class goods by rail to Hommelvik and Drontheim, and ship them to the United Kingdom from there. Considerable quantities of Swedish goods will also doubtless find their way to the British market via Gothenburg and Christiania. Whether it will pay for some of the Upper Finish shippers to lighter goods to Lulea for transport by rail to Narvik is, however, doubtful. That the Finns will do a great deal to obtain cash before winter is certain, so that this method of obtaining it is not so fantastic as it may appear at first sight.

"What the Panama Canal can do to make an opening for the American and Canadian mills on the West coast, to the United Kingdom market, we may be sure will be done. Altogether we are by no means so pessimistic as some of our importers, with regard to the outlook for obtaining supplies of sawn wood; without the necessity of paying prices calculated to stop or even to seriously curtail building operations.

"The pulp and paper trades can pay a higher rate of transport than the sawn and planed wood trade, and these commodities will find their way to market easier; more especially when the enormous demand for paper is taken into account."

A unique form of advertising the natural resources of British Columbia with special reference to the products of the forest has been adopted by the provincial government in the form of a small piece of 3-ply British Columbia fir about the size of an ordinary business card, bearing printed information on both sides.. One side contains the following information:—

British Columbia's population is 539.850. Its production in 1913 was valued as follows:—Agriculture, $24,000,000; lumber, $30,000,000; mining, $30,000,000; fisheries, $15,000,000; manufacturers, $45,000,000.

The other side bears the following information:—The annual cut of timber in British Columbia amounts to 2,000,000,000 feet. There are 794 logging camps and 425 mills employing 60,000 men. These produce lumber, lath, shingles, poles, masts, spars, railway ties, boxes, barrels, wood pipe, pulp, street paving, sash, doors, veneer, etc. British Columbia has the greatest stand of shingle material in the world. The annual cut exceeds 2,000,000,000 shingles. One hundred and twenty-five new shingle machines were installed in 1914.

Exports of lumber from British Columbia, Washington and Oregon to foreign countries during the first six months of 1914 totalled 285,644,265 feet, as compared with 275,742,926 feet for the corresponding period of 1913, a gain of 9,921,339 feet, according to the returns just completed by the Pacific Lumber Inspection Bureau.

Canada Flourishes in Spite of the War

Hon. W. T. White, Minister of Finance, Foresees a Quickening of Canadian Industry —Adjustment Progressing Favorably—The Outlook Promising

So far as Canada is concerned, we have been passing through a period of dislocation. Readjustment is taking place favorably and the outlook is distinctly promising. Many of our industries have suffered, but the first and worst effects will gradually wear away. Others have been greatly quickened and stimulated. The higher prices for grains and other agricultural products will more than neutralize this year's shortage in amount. For the future, agricultural production should be immensely stimulated and this, for years past, has been the great need in Canada. This will solve the problem of the high cost of living, the over-crowding of cities and consequent unemployment. It will also enable Canada to greatly increase its exports, thus ensuring payment of our interest and other obligations abroad and the preservation of our national credit. With so many men offering their lives for the Empire and undergoing hardships, privation and suffering at the front, it is the duty of every man at home to put forth his utmost effort to increase production, to add to the national wealth, that the wastage of war may be repaired and the strength of the nation be increased to meet whatever of struggle and stress may lie before us.—Hon. W. T. White, Minister of Finance.

The Hon. W. T. White, Minister of Finance, in an address before the Gananoque Board of Trade, on September 21, spoke in no uncertain tone of the financial, commercial and industrial situation in Canada. His views are those of an expert financial analyst and will go far towards instilling confidence in the Canadian business world.

The Minister of Finance referred to the change which had come over the face of the world since January last. At that time international money markets were slowly convalescing from the effects of the terrible Balkan Wars and anarchic conditions in Mexico. By midsummer, conditions had begun to show improvement. Our great railway systems had given large orders for material to steel and other industries. Trade was increasing and altogether the outlook had been most encouraging. After the long-continued liquidation our financial institutions were in an unusually strong position to meet the commercial requirements of the community. In the twinkling of an eye all this prospect had been changed. War had broken out among the great nations of Europe and international commerce had been prostrated by the shock. The marvel was that it had been so well sustained. Of all the factors entering into the recovery which has so far taken place the most important by far was the silent victory of the British navy which had kept the seas open to commerce. Had the British navy failed in this what would have been the financial and commercial conditions of Canada and the United States today? Financial expedients had been promptly adopted by the Canadian and other governments, which had acted as efficient shock-absorbers. This was the function of such expedients—to absorb, cushion and buffer shock. They were not intended as permanent measures.

In Canada the first effects of the war had been necessarily of a serious character. Being a borrowing country, Canada had experienced an almost complete cessation of the money flow, from which her immense capital expenditures, governmental, municipal and corporation had been largely financed. Canada, from the sale of corporation securities in Great Britain and United States had been in receipt of funds aggregating about four hundred million dollars a year, or over thirty million dollars a month. All great public works, whether by the Dominion, Provincial or Municipal governments or by railway or other large corporations had depended for their financing upon the capital so raised abroad. The result had inevitably been curtailment of programme on the part of all these public and corporate bodies. The instinctive Canadian caution which could always be depended upon in times of crisis had met the situation by prompt contraction and panic had been avoided. He had talked with representatives of provinces, of municipalities, of railway and other corporations, and they were all of the same sound view, not on the one hand to close down construction, nor on the other to attempt to carry out the full programme they had planned. Either course would be most unwise. The sound policy was the middle course, and this he believed was being generally adopted. Construction programmes should be so revised as to give the greatest amount of employment for the funds available. While international markets were at present closed, no doubt borrowing, although on a much reduced scale, would be possible later, and increased thrift on the part of the public would be a material factor in furnishing new national capital. The spirit with which the Canadian community had met the situation was wholly admirable.

So far as Canada is concerned, we have been passing through a period of dislocation. Readjustment is taking place favorably and the outlook is distinctly promising. Many of our industries have suffered, but the first and worst effects will gradually wear away. Others have been greatly quickened and stimulated. The higher prices for grains and other agricultural products will more than neutralize this year's shortage in amount. For the future agricultural production should be immensely stimulated and this for years past has been the great need in Canada. This will solve the problem of the high cost of living, the over-crowding of cities and consequent unemployment. It will also enable Canada to greatly increase its exports, thus ensuring payment of our interest and other obligations abroad and the preservation of our national credit. With so many men offering their lives for the Empire and undergoing hardships, privation and suffering at the front it was the duty of every man at home to put forth his utmost effort to increase production, to add to the national wealth, that the wastage of war might be repaired and the strength of the nation increased to meet whatever of struggle and stress might lie before us.

England Wants Canadian Mining Timbers

An event of unusual importance to the lumber producing world of Canada is the recent appointment of a special commission by British colliery owners and the British Board of Trade, to confer with Mr. Hamilton Wickes, British Trade Commissioner at Montreal, regarding the possibility of securing a supply of timber props for British coal mines. These props hitherto have been supplied from Baltic ports from which the traffic has been interrupted by the war. According to Mr. Harrison Watson, Canadian Trade Commissioner in London, England, the value of this trade is $20,000,000 annually and it is therefore of great importance to Canadians that they should make an effort to obtain a good share of the business. Mr. Harrison Watson has expressed some fear that Canadian exporters may make their prices prohibitive, thinking that Great Britain is wholly dependent upon Canada during the war for these products. He states that suitable timbers can be procured from the south of France and from Portugal. Moreover, Russian Baltic ports have been supplying about half the imports of props hitherto, and Russia, being an ally, the trade would probably revert to these ports after the war unless Canadian prices are made attractive. Mr. Watson also pointed out that another reason why the Canadian quotations should be kept at a moderate figure is that the Atlantic freight rates are considerably higher than those from the Baltic ports, and, therefore, the Canadian dealers should make this a consideration if they wish to obtain and retain the trade. Another important question which the commissioners will be called upon to decide is whether the Canadian timber is suitable from the standpoint of breaking strength.

The five commissioners who sailed on the Royal Elward on September 19th, are: W. Windham, representing the Board of Trade; N. Cummings and D. B. Harrower, of the Timber Trade Federation of the United Kingdom; E. B. Whalley, of the Mining Association of Great Britain, and R. Gomme, secretary of the Board of Trade. They will be met at Quebec by Mr. Hamilton Wickes. The commissioners may visit Newfoundland before their return, but they will not decide definitely on all their movements until their arrival in Canada. Mr. Watson reports also that British timber merchants and creosoting works are enquiring for Canadian wood sleepers suitable for railway construction. Large orders have already been placed in British Columbia, and he thinks that a good share of the trade is procurable for Eastern Canada if the prices and other conditions are made attractive

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War's Effect Upon U. S. Lumber Export

An estimate of the effect of the war upon the lumber industry is contained in an article by Bristow Adams in the September number of American Forestry. It is pointed out that, while there may be an appreciable increase in the demand for those kinds of lumber useful for military purposes, the laws against contraband will make shipments risky while the falling off in the demand for timber used

in the arts of peace cannot possibly be compensated. Mr. Adams writes in part:

"There may be, in countries at war, an increased demand, as with the Balkan ammunition boxes. But it is scracely likely that the lumbermen of the United States can profit through these demands bebecause all such lumber would be contraband. Ship timbers have always been regarded as contraband by Great Britain, and Germany is not going to be far behind in taking a similar view. In the contraband lists already made public it has been shown that all lumber which might even remotely be utilized in war or in distinctly related projects is seizable.

"There is no conjecture about this part of the situation. Already the shipment of lumber from the Southern ports is entirely paralyzed. Great losses have already been sustained through the seizure of vessels which were on the high seas when war was declared, or through cargoes diverted to points at which the timber cannot readily be sold, because lumber intended for export to one country is very seldom in such shape as to be readily saleable in another.

"In actual figures, the countries directly or indirectly involved in war take, in round numbers, 700,000,000 board feet of United States timber, of which about 650,000,000 is Southern yellow pine. Already, most of the firms cutting yellow pine for export have either closed or have greatly curtailed their product. With Japan carrying belligerency into Asia, and the Pacific, the 50,000,000 board feet exported from the northwest coast is likely to be temporarily cut off from market.

"During the twelve months ended June 30 United States exports of timber to France, Germany, Italy and the United Kingdom amounted in value to $6,164,371; and sawed lumber exports were worth $17,-607,011. By far the larger part of this yearly income, which takes no count of furniture and other materials made chiefly of wood, amounting to $23,671,882, or nearly $2,000,000 a month, is going to be lost to American producers while war continues."

The Annual Convention of Hoo-Hoo

A preliminary report of the 23rd annual convention of the Concatenated order of Hoo-Hoo which was held in Winnipeg from September 8th to 11th, appeared in the Canada Lumberman of September 15th. Delegates were present from all parts of the United States and Canada, the total attendance including delegates and their wives amounted to 524. A private business session was held on September 8th at which the following officers were elected to the Osirian Cloister:—High Priest of Osiris, Frank W. Trower, San Francisco; High Priest of Ptah, E. L. Tennant, Winnipeg; High Priest of Ra, H. J. Miller, Everett, Wash.; High Priest of Iris, John M. Kirby, Houston, Texas; High Priest of Sher, P. S. Langan, Cairo, Ill.; High Priest of Thoth, W. M. Stephenson, St. Louis, Mo.; High Priest of Hathor, George Grayson, Grasonville, Ark.; High Priest of Seid, R. W. England, Denver, Col.; High Priest of Ankibis, W. J. Woodward, Norfolk, Va.

A business session of the Osirian Cloister was also held at which 23 kittens were initiated.

In the evening a banquet was given for the Osirians and their ladies at the Fort Garry hotel. Several interesting addresses of welcome and messages of greeting were delivered, among them an interesting address by Sr. Hoo-Hoo E. D. Tennant, of Winnipeg, who made an address of welcome which was to have been delivered by Sir Douglas Cameron, Lt.-Governor of Manitoba, who unfortunately was unable to be present. Mr. Tennant spoke feelingly of the spirit of good fellowship developed by Hoo-Hoo. He referred also to the existance of the war in Europe, in connection with which many Hoo-Hoo of Canada were already performing their duty and about to go to the front. This gave him an opportunity to refer forcibly to the Concatenated Order of Hoo-Hoo and its objects. "Our organization," he said, " is international in character and, meeting under these extraordinary conditions, I think the lumbermen of the North American continent have a great opportunity to show the world at large that military-cursed Europe has nothing in common with us. We are engaged in peaceful, industrial occupations and we believe that we should go on and strengthen the bonds that bind us together. Our countries, at peace, are united by bonds of friendship that will ever grow stronger as the years pass, and will develop the best that there is in mankind. While you may find the minds of your hosts divided between thoughts regarding the security of our nation and the desire to develop Hoo-Hoo, you will find that we are supremely confident as to the final outcome of this gerat struggle."

A reply to Mr. Tennant's welcome was made by Mr. Frank W. Trower, High Priest of Osiris.

There was an interesting discussion as to the place of meeting for the next annual convention, invitations being received from Denver, Col., Atlantic, Mass., New York, N.Y., Chicago, Ill., Columbus, Ohio, San Francisco, Cal., and Great Falls Mont.

The choice of the delegates resulted in a decision to meet next year at San Francisco.

On the evening of September 9th the delegates were entertained to a luncheon by the city of Winnipeg. Over 600 guests were present. After the luncheon a concatenation was held at the Fort Garry Hotel and the ladies were entertained to a theatre party.

On the morning of September 10th a private business session took place at which several new members were initiated.

One of the most interesting events of the convention then took place in the arrival of the founder of the order, Mr. Bolling Arthur Johnson, of Chicago, who was introduced by Sr. Hoo-Hoo E. D. Tennant.

Mr. Johnson was received with great applause and delivered an interesting address.

In the evening a formal entertainment was held at the Fort Garry Hotel at which about 400 guests were present, including the mayor, and several members of the Board of Control and City Council of Winnipeg. At 11 p.m. the diners retired to the 7th floor of the hotel and indulged in a dance programme.

At the afternoon session the election of officers for the ensuing year took place and resulted as follows:—

E. D. Tennant, Winnipeg, Man., Snark of Universe; E. H. Lewis, New York, N.Y., Senior Hoo-Hoo; W. P. Lockwood, Seattle, Wash., Junior Hoo-Hoo; R. A. Hiscos, San Francisco; Bojum Hoo-Hoo; F. R. Verkerke, Grand Rapids, Mich., Custocatian; L. D. May, Jacksonville, Jabberwock; G. H. Murray, Ashville, N.C., Arcanoper; G. H. Grayson, Graysonia, Gurdon; W. M. Stephenson, St. Louis, Mo., Scrivenoter.

The New Snark of the Universe

Mr. E. D. Tennant, the new Snark of the Universe was initiated into Hoo-Hoo in 1902. During the years 1909-10-11 he served as Vicegerent Snark for the district of Manitoba. In 1912 at the Ashville, N.C., convention he was elected Supreme Junior Hoo-Hoo. In the following year at the convention which was held at St. Louis, Mo., he was elected to the office of Senior Hoo-Hoo, and this year at the Winnipeg convention was chosen for the highest position in the gift of the order, that of Snark of the Universe.

Woods Operations—The Waste Problem

Editor Canada Lumberman:— Woodstock, N.B., Sept. 7.

The problem of avoiding waste in woods operations and in the mill furnishes a very broad question, the solution of which differs materially in different localities. In our logging operations we cut practically everything that will make 2 in. x 4 in. and laths, where it is on a short haul. This pays alright, but if you should have a long haul it would not pay to handle such lumber at all. However, we believe in taking the whole of the tree; that is, to cut low on the stump and not leave a third of the top in the woods, as I have noted in some cases.

My personal experience is that the logger has to use his best judgment as to the course to persue, depending largely upon the locality. There is no hard and fast rule laid down in the matter, and I find that the same applies, in a measure, to the operations of the mill.

Here we have an excellent demand for all the waste wood and even the sawdust. For this we get a price considerably above the cost of handling it. We take all the lath possible out of the slabs and the trimmings and other large pieces too short for lath wood we manufacture into barrel heads. Therefore we consider that we get all the money out of our stock that is possible. In a different locality, however, our methods might not prove so successful, as the conditions might be different from those existing here.

However, after twenty-six years in the manufacturing of lumber, I believe that the greatest care should be exercised in conserving the forests, as well as in using its products to the best possible advantage. Undoubtedly our forests are among the greatest natural resources of our country.—W. M. Smith (Smith Lumber Company).

Sale of Large Tract of Timber

It is reported that timber limits extending over 115 square miles along the foreshore of Seymour Inlet and adjacent waters in British Columbia, including 3,000,000,000 feet of high-grade cedar, were recently transferred to a syndicate of capitalists from the United States. It is said to be the intention of the purchasers to begin logging operations on the limits in the near future, and the plans contemplate placing several sawmills on the property. The scarcity of cedar and the increasing price of high-grade timber in the United States have caused American millmen to turn their attention to British Columbia, which has the largest compact area of merchantable timber on the continent. The abolition of the duty on Canadian shingles and other forest products has encouraged and given impetus to the shingle industry, which has made great progress in the Province recently.—R. E. Mansfield, U. S. Consul General at Vancouver, B.C.

South African Lumber Trade Prospects

Large Possibilities for Increasing the Demand for Canadian Products— Details of the Baltic Shipments to Durban

The importance of the lumber trade of South Africa will be recognized when it is stated that in 1913, by no means the largest year of import, 187½ millions feet b.m. were imported into the country, of which almost 115 million feet was pine; and 47½ million feet consisted of flooring and ceiling boards, manufactured for the most part out of the same raw material, says the Canadian Trade Commissioner at Durban.

The distribution of the imports are as follows:—

	Ft. B.M.	$
United Kingdom	3,864	180
Canada	7,728,480	155,364
United States	25,038,660	534,656
Sweden and Norway and Baltic ports	81,653,724	1,879,453
Other Countries	287,064	9,503
Total	114,711,792	2,579,158

The figures from the United States include a great deal of pitch pine, which cannot be procured from Canada; but the bulk of what arrives from the Baltic is material that could come from the Dominion. It will be seen that the respective figures are 7 millions and 81 millions, a difference of 74 millions in favour of the Baltic ports.

Timber Trade With the Baltic

The system in vogue as regards the Baltic timber trade is that agents for the mills quote customers all over the country, including farmers, and small dealers in the small towns of the interior. These are forwarded to the mills which ship same on steamers running at regular intervals. A copy of the general shipping conditions from the Baltic as regards wood goods has been forwarded to the Department of Trade and Commerce, Ottawa, and it will there be seen that the freight rate to Durban, which is, perhaps, the chief lumber port of the Union, is approximately $19.35 per standard of 1,980 feet B.M., or

On July 1, quotations for Baltic lumber, c.i.f. Durban, are:—

	$	$
Deals, 3 x 9	69 35 per std.	or 35 00 per 1,000 ft. B.M.
Scantlings	62 05 per std.	or 31 00 per 1,000 ft. B.M.
⅞ x 6 flooring	66 91 per std.	or 33 45 per 1,000 ft. B.M.
½ x 6 ceiling, beaded	69 35 per std.	or 35 00 per 1,000 ft. B.M.

Allowing $19.35 freight per standard (or $9.70 per thousand feet B.M.), it will be seen that a minimum of over $20 is left to pay the mill, insurance, and for putting the lumber at ship's side in cases where the ship will not call at the mill; and for paying the agent his commission. The lumber is manufactured from common grade stock, and is full of knots, some of them very large. That is the grade of lumber that this market calls for. The difference between grades is difficult to distinguish; but it may be summarized in the words of the dealer, who said, "Sometimes we get a better lot than at another time, and in that case we place our next order with the same mill."

Imports From Canada

As regards the trade from Canada, apart from comparatively small consignments, it is made up for the most part of cargoes per sailing ship from Vancouver or Vancouver Island ports. This timber is mostly for the South African Government railways, and consists of baulks running from 12 x 12 to 18 x 18, and deals 3 x 9 and 4 x 12. The railways also require from time to time consignments of clear pine, averaging about 200,000 feet a year; and they also buy shelving grade. There has been forwarded to the Department of Trade and Commerce, Ottawa, a specimen Tender Form, together with the conditions of timber contracts, which will be of service to those who may wish to enter the trade and deal direct with the government.

The Canadian lumber trade should remember when dealing with South Africa that the basis of calculation is different. Where the United States and Canada always speak of feet board measure, importers here ask for Baltic standards, which are, approximately, two thousand feet B.M. (actually 1,980 feet or 165 cubic feet). Large timbers again are calculated heer by the cubic foot, while flooring and ceiling are often asked for retail in running feet or 100 feet squares.

Then again there are differences in sizes cut at the mills. The Canadian mills cut logs into 2 x 4, 2 x 6, 2 x 8, 2 x 10 (occasionally), and 2 x 12; and the differences between the two trades will be appreciated by the following quotations taken from the principal South African lumber firms. Prices are per running foot:—

	6 to 8 Ft. Cents	9, 11, 13 to 17 Ft. Cents	10, 12 and 18 up Cents
Deals—			
3 x 11	14	14.4	15.2
4 x 9	14.3	16.1	16.7
3 x 9	10.6	11.1	12
Boards—			
2 x 9	7.6	8	8.1
1½ x 9	5.6	6	6.1
¾ x 9	3	3.1	3.2
1 x 9	4	4.1	4.3
Scantling—			
3 x 6	7.2	7.6	8

The above will suffice to show the sizes and method of selling. Other scantlings measure 3 x 4½, 3 x 3, 2 x 6, 2 x 4½, 2 x 3, 2¼ x 3, 1½ x 6, 1½ x 4½, 1½ x 3. It will be seen that for the main the 3 x 9 plank is the basis of cutting, and from that the above are cut out as follows:—

Flooring is cut into ⅞ x 6, ⅞ x 4½, 1⅛ x 6, and is sold at the running foot, the price ranging from 2¼c. for ⅞ x 6, 6 to 8 feet in length, to 3¼ for 1⅛ x 6, 10, 12 and 20 foot lengths and above that length. Other lengths of flooring are 9, 11, 13 and 19 feet.

Ceiling is cut ½ x 6, and is sold in 8 feet lengths at 1½c. per running foot; 9, 13 to 19 feet lengths at 1¾c. per running foot; and 10, 11, 12 and 20 and up at 2c. per running foot.

Pine shelving, dressed four sides, 1 x 12 is 7.1c. per running foot, $71 per M.

Clear pine, dressed four sides, ½ x 12 is, 10c. per running foot, $200 per M. 1 x 12 is 13.2c. per running foot, $132 per M. 1½ in., $142 per M. 2 in., $142 per M. 3 in., $152 per M.

Poplar, dressed four sides, ½ x 12, $212 per M. 1 x 12, $142 per M. 1½, $152 per M. 2, $152 per M.

Swedish mouldings, 2-in., 2½-in., 3-in., 4-in., 5-in., 6-in., per lineal foot, 1½c., 1¾c., 2c.

Architrave, 2c., 2½c., 3½c., 4c.

Cornice, 1½c., 2½c., 3½c., 4c.

Finials, 3 x 3, 80c.; 4 x 4, 80c.

Pitch pine, per cubic foot, 80c., $66 per 1,000 feet B.M.

Oregon pine, per cubic foot, 60c., $50 per 1,000 feet B.M.

Oregon pine deals and scantlings, same price.

The following prices for doors are not for No. 1 grade. They are not better than No. 2, often worse, and they are for pine or spruce or fir 4-panel doors:—

	6' 6" x 2' 6" $ c.	6' 8" x 2' 8" $ c.	6' 10" x 2' 10" $ c.	3' x 7' $ c.
1¼ DM American	2 30	....	....	
1½ DM American	2 55	2 89	3 04	3 40
1¾ DM American	....	3 65	4 01	4 25
Half-glass Doors, Swedish	3 77	4 25	4 62	5 00
Batten door	1 46	1 46	1 58	1 58
Door frames	1 95	1 95	2 00	2 00
Jambs, 1½ x 10½	2 06	2 06	2 12	2 12

Frames and sashes (Swedish pattern, local manufacture)—12-lights, 7 x 9, $4.14; 8 x 10, $4.25; 10 x 12, $4.50; 10 x 14, $5.10; 12 x 14, $5.60; 12 x 16, $5.95; 14 x 16, $6.57.

Margin lights—20 x 20, $5.95; 24 x 26, $6.93; 24 x 30, $7.78. 4-lights, 15 x 24, $5.47; 15 x 30, $5.84; 16 x 32, $5.20; 18 x 36, $6.68.

French casements (margin lights)—3 ft. 6 in. x 6 ft. 8 in. x 1½ in., $6.32; 3 ft. 6 in. x 7 ft. x 1½ in., $6.93; 4 ft. x 7 ft. x 1½, $7.18; 4 ft. x 7 ft. x 1¾, $8.64.

Casements—6-lights, 8 x 10, 91c.; 10 x 12, $1.10; 12 x 14, $1.40. 4-lights, 8 x 10, 80c.; 10 x 12, 97c.

Casements and frames—6-lights, 8 x 10, $2.20; 10 x 12, $2.68; 12 x 14, $3.05. 4-lights, 8 x 10, 79c.; 10 x 12, $2.31.

Fanlights—1½ frames, 2 ft. 6 in. x 16 in., $1.22; 2 ft. 8 in. x 16 in., $1.22; 2 ft. 10 in. x 16 in., $1.34; 3 ft. x 6 in., $1.34.

The above prices will suffice to show what the price of factory goods are. Discounts are small as compared with Canada, 10 per cent. being about the limit, while 5 per cent. for cash within thirty days is the general rule. These are to the wholesale trade, but to the ordinary buying public, outside builders, etc., prices are net cash.

Demand for Oregon Pine

Speaking more particularly of Oregon pine, which forms the bulk of importations from the Pacific Coast, these are determined in the

main by the needs of the South African railways. If the tender form forwarded herewith it studied it will be found that sawn pitch pine logs, which come mostly from the Southern States, timbers 10 x 10 up to 15 x 15 are asked for, with a minimum of 35 cubic feet per log, equal to 420 ft. B.M., or a log 12 x 12—35. The quotations must be at per cubic foot.

In the schedule for Oregon pine prices are asked for at per load of 50 cubic feet ex ship at ports stated. After delivery to wharf the railway takes delivery. Deals are at per running foot.

Just recently the writer was told that the Government was paying $50 per M. ft. B.M. (2s. 6d. per cubic foot) for Oregon pine, and this price is 30 per cent. less than is paid for same by private firms. The grade required by the Government is "merchantable," that is strong sound timber, free from shakes, large, loose, or rotten knots and defects that impair its strength or are incompatible with merchantable grading. Sizes run from 12 x 12 to 18 x 18, and lengths from 20 to 40 feet, but average length is less than 30 feet. Deals are 3 x 9 and 4 x 12, and from 12 to 40 feet in length, with the average of parcels for different ports 18 to 25 feet in length.

It will be noticed that all lengths are taken.

With regard to Pacific coast cedar. There could be a market worked up for same for boat building purposes, but the total amount would not be many thousands of feet per year unless the price was reasonable. At present spruce and fir of common grade, with sound knots, are used; but the proper material is, of course, clear grade. The advantage of cedar is that it is light, and as the class of sailing boat built calls for extreme lightness, cedar would oust both spruce and fir. Some 1,000 feet of clear 1-inch full rough cedar at $70 landed on wharf at Durban will be required in October. The length of the planks should be 28 feet, so as to allow of the boat's planking being in one piece.

To suggest how Canada is going to enter this trade is to show how the Swedish mills have built up their business. This has been developed along the following lines. Many of the mills have agents here who indent for lumber for smaller firms in quantities of 10, 15, 20 or more standards, or, in B.M., 20 M., 30 M., 40 M. or more feet. A regular steamship line has been inaugurated, and its vessels steam from mill to mill, picking up what parcels may be offering. It makes no difference how small the parcel may be, the steamer will pick it up or send for it. The general shipping conditions attached to this trade are being forwarded and may prove useful.

Freights are fixed by agreement, and, as will be seen, are high, Durban's rate being about $18.85 per standard, or $9 per M. ft. B.M.

Grades of Lumber Required

In deals, boards, and dimension lumber generally there is only one grade, common and often worse. The same applies to ceiling and skirting, which are nearly all OG in pattern. Bull nose and other casing are unknown here, the simple non-lust-collecting lumber for internal finish not having been introduced. Flooring is also worse than No. 2 flooring as understood on the Pacific coast. It is ordinary common lumber, grooved and tongued. The town hall at Durban, which cost over a million and a half dollars, is floored with material full of small knots, and the same fault applies to the best of Baltic flooring, the knots being often not even sound.

There is little sentiment in business here, but if Canada can give a better article for the same price than can be had now, there is a large market. There will, however, be competition here from firms which are bound up to a certain extent with the Swedish mills. People will need to know that Canadian lumber is better, can be procured as required, and that there will be regular sailings on which they can depend. From the east coast there is already a monthly service, but from the west coast there comes a full cargo only three or maybe four times a year.

N. B. Cut May be Only Slightly Reduced

The Chatham, N.B., Gazette in a recent issue says:—Most of the lumber companies are preparing for the winter operations in the woods on about the same scale as usual, and those who are in touch with the lumber situation feel that business will be on a good footing next season. The stoppage of shipments from the Baltic has made the Canadian supply more in demand and prices are good. Freights are up, but not sufficiently to alter profits materially. Provisions are, of course, higher and it is going to cost more this winter to get out the same quantity of lumber than in any previous year. For this reason wages have taken a drop and the employees are meeting this with a very good grace. The general run of wages this year will be about $24 to $28 per month as against $30 to $34 last season.

Other press reports however, state that the output will be comparatively light, and that many of the big operators have not yet decided how much they will cut. The North Shore lumber concerns are sending in crews to begin the winter operations. The Bathurst Lumber Company, Shives Lumber Company and Richards Lumber Company all sent crews into the woods recently, and while none of the above-mentioned will cut as large an amount as last year the cut will be larger than at first expected.

Price Bros. & Co.'s New Saw and Rossing Mills

The accompanying illustrations represent two mills which were erected last spring in the Lake St. John district by Price Bros. & Company, Limited, Quebec, P.Q. One of these, the St. Gedeon mill, is situated at the north of the Belle River where it flows into Lake St. John. The Quebec and Lake St. John railway division of the Canadian Northern Railway passes by the mill and has a siding in the mill yard. This mill contains a circular saw and carriage, two edgers and two resaws, one of which is a Waterous steam feed resaw, also five

Price Bros. & Co.'s new mill at St. Gedeon, P Q.

Waterous barkers. The mill has a capacity of 8,000,000 feet of sawn lumber and 4,000,000 feet of rossed pulpwood per annum. Its logs are secured from limits situated on the Belle River and on the Lake at the head of the river and total in all 150 square miles.

The lumber is shipped by the Quebec and Lake St. John Railway to Chicoutimi where it is piled on the company's wharves, shipment from that point being made by water. The pulpwood is shipped by rail to the Kenogami Paper Mill of Price Bros. & Company, Limited.

The other illustration represents the Metabetchouan mill located at the mouth of the Metabetchouan River on Lake St. John. This

Price Bros. & Co.'s new pulpwood mill on the Metabetchouan.

mill contains ten barking machines which are operated day and night upon wood which is subsequently used at the Kenogimi Paper mills.

The two mills are run under the control of the Chicoutimi agency of Price Bros. & Company, Limited, of which Mr. J. McDowall Grosart is manager. This agency covers the logging and lumber department for the Lake St. John, Chicoutimi and Saguenay districts of Price Bros. & Company's operations. For the coming year this agency has given out contracts for 80,000,000 feet of logs.

Mr. J. E. Ray, Canadian Trade Commissioner at Birmingham, England, reports that the effect of the war upon the timber trade is not yet fully apparent, but that the cessation of shipments from Great Britain's chief sources of supply in Europe will show itself unmistakably during the next few weeks as stocks become depleted.

The New Snark of the Universe

The new Snark of the Universe, E. D. Tennant, Winnipeg.

Mr. E. D. Tennant the new Snark of the Universe of the Concatenated Order of Hoo-Hoo was born in Brantford, Ont., in 1879, and comes of a Scotch Canadian family. He was the second son of the late James Tennant, who for many years was a prominent figure in the lumber business in Toronto, where he received his education and business training. Upon deciding to enter the lumber business Mr. Tennant went to Fort William, Ont., in 1896, and entered the services of the Graham & Horne Company. He was, while with this firm, given the opportunity of mastering thoroughly every detail of the business. He also had four or five years' experience in the mills and lumber camps on the north shore of Lake Superior. In 1900 Mr. Tennant became connected with the Rat Portage Lumber Company of Winnipeg, Man., in the capacity of sales manager. He was also manager of the sash and door factory until 1912 when he severed his connections with this firm to take over the management of the business of Turnbull and MacManus of Winnipeg.

Mr. R. H. Campbell Back from the War Zone

When war broke out between France and Germany R. H. Campbell, chief of the forestry branch of the department of the interior, was in Chambray, France, with comparatively little French money in his pocket. He had some Swiss currency, however, and with this hurried over to Geneva, where he was able to purchase a railway ticket to Paris. He took the train from Geneva for the French capital August 11, and the journey was made without any unusual experiences. As soon as Paris was reached he, like every other tourist, had to hasten to the prefect of police to get a permit to allow him to stay in Paris. The next day he had to get another permit from the same source to enable him to leave for Boulogne, there to take a boat to England. At Boulogne he saw British troops arriving from England and leaving for the front. He remained in London two weeks before he returned to Montreal. Mr. Campbell went to Switzerland to look into the work of re-afforestation in that country, but war prevented him from completing his investigations.

Personal Paragraphs

Mr. George Nicholson of Austin & Nicholson, Chapleau, Ont., visited Toronto recently on business.

Mr. Hermann H. Hettler of the Hermann H. Hettler Lumber Company, Chicago, Ill., visited Toronto recently on business.

Among lumbermen recently visiting Toronto was Mr. H. J. Bartlett, of Ogdensburg, N.Y., a member of the firm of Skillings, Whitneys & Barnes.

Mr. Robert Vestal, manager of the Atlantic Lumber Company, 110 Manning Chambers, Toronto, has left on a protracted visit to Southwestern Texas, for the sake of recovering his health, which has recently been poor. Mr. Vestal expects to be back in Toronto in the early spring. In the meantime Mr. J. W. Jacobson will be in charge of the company's business at Toronto.

The marriage of Mr. C. P. Waterous, superintendent of the Waterous Engine Works Company, St. Paul, Minn., to Miss Fanny Nagle, daughter of Mrs. F. A. Nagle, 61 Chesterfield Avenue, Westmount, P.Q., took place at Westmount on September 16. Mr. Waterous is the grandson of the founder of the well-known Waterous Engine Works Company, Limited, Brantford, Ont., of which the St. Paul plant is a branch.

Logging Congress Officers

At the closing session of the Pacific Logging Congress recently held at Bellingham, Wash., officers were elected as follows:—President, J. J. Donovan, Bellingham, Wash.; vice-president, A. W. Laird, Potlatch, Idaho; secretary-treasurer, George M. Cornwall, Portland, Ore.; executive committee, Arthur J. Henry, Vancouver, B.C.; A. W. Peed, Eureka, Calif.; H. M. Strathern, Post Falls, Idaho; George F. Weisel, Missoula, Mont.; A. H. Powers, Marshfield, Ore.; E. G. English, Mount Vernon, Wash.

Wistar, Underhill & Nixon's New Canadian Representative

Gilbert B. Woodhull.

The accompanying portrait represents Mr. Gilbert B. Woodhull, the new representative in Canada of the widely-known firm of Wistar, Underhill & Nixon, wholesale hardwood lumber dealers, Philadelphia, Pa. It is interesting to note that this firm was organized in 1898, and that all of its members are experienced lumbermen and merchants, who had extensive training in various fields of the industry before the firm was organized. Every member of the firm is active and aggressive, and as a result of their energy, business methods, and knowledge of the details of the lumber trade, they have advanced to a position in which they hold the confidence and the respect of the trade.

The firm has a well equipped and well stocked hardwood yard at Nashville, Tenn., and another at Basic City, Va. They own a controlling interest in the timber and sawmill of the Penn Sumter Lumber Company, of Sumter, S.C., of which Mr. Wistar is president and Mr. Underhill treasurer. They have also a number of contracts with some of the finest sawmills in Arkansas, Mississippi, Louisiana and Georgia for products of yellow pine and cypress. They make a specialty of the widely-known "Golden Rod" kiln dried, soft short leaf yellow pine. This stock is grown in one of the choicest forests of the finest short leaf pine in the United States. It is manufactured on a first class band mill and its excellence is appreciated by the trade which recognizes the value of high class lumber. The firm ars also extensive shippers of poplar, oak, chestnut, maple, cypress, and white and yellow pine.

For a number of years the firm were represented in Canada by Mr. W. J. Anderson, of London, Ont., who had gained and retained many warm personal friends in the Canadian lumber trade. Mr. J. W. Anderson, who has been identified with the house for many years and who was a son of W. J. Anderson, has also made periodical visits to the lumber trade in Canada. The death of the father, Mr. W. J. Anderson, made it necessary for the firm to arrange for other representation, and they selected Mr. Gilbert B. Woodhull, who for some time had been their representative in New York State. Mr. Woodhull has already made many friends among the Canadian customers of Wistar, Underhill & Nixon, and his pleasing personality, courteous manners and fair methods are certain to gain for him a constantly increasing confidence and regard, which are the basis of all good business. Mr. Woodhull has had excellent training for the position. He is a graduate of Cornell University, and has been identified with the lumber trade since his youth, inasmuch as his father has been a lumberman extensively engaged in the lumber business in Brooklyn, N.Y. For a number of years Mr. Gilbert B. Woodhull successfully represented Gouverneur E. Smith, of New York City.

Mr. Woodhull will, for the present, make his headquarters at the Prince George Hotel, Toronto, but can be reached permanently by mail at P. O. Box 54, Toronto, Ont.

The Pacific Lumber Company's Extensions

Mr. John D. Mershon, of Saginaw, Mich., has just returned from his semi-annual trip to California, and reports that The Pacific Lumber Company have nearly completed the extensive improvements which have been undertaken to take care of their rapidly growing eastern business. These improvements at Scotia, California, are put in with a view to taking care of the business direct from Scotia, as soon as the Northwestern Pacific Railroad is completed to the mill, which will be within two or three months.

The Pacific Lumber Company have erected the largest planing mill that Mr. Mershon ever saw, it being 230 feet wide by 660 feet long. This mill will be free of belting and shafting, and each machine will be operated by an independent electric motor.

They have also erected a storage shed for dry lumber, 200 feet by 660 feet long. The lumber is moved about the plant in units by a monorail system, and as soon as business becomes normal, after the upheaval caused by the European war, they will be ready to do business direct from Scotia.

The John D. Mershon Lumber Company, Saginaw, Mich., are the exclusive eastern representatives for The Pacific Lumber Company.

Death of W. S. Rogers

Many readers of the Canada Lumberman will learn with deep regret of the death of Mr. W. S. Rogers, general manager of the Canadian Western Lumber Company, who was one of the most prominent lumbermen on the Pacific Coast. Mr. Rogers passed away at his home in Fraser Mills, B.C., after a lingering illness and in the presence of a number of relatives. He is survived by a widow, a mother, eight brothers and two sisters.

The late Mr. Rogers had been prominently connected with the lumbering business practically all his life, and since the opening of the large plant of the Canadian Western Lumber Company at Fraser Mills, eight years ago, had been actively engaged in connection with it. Acting as superintendent of the local plant until some two years ago, he had filled that important office so successfully that he was made general manager of the entire concern with direct supervision of all the departments of the company. He was greatly respected and liked by all who were employed under him and had an engaging personality which endeared him to all with whom he came in contact. His death is a great loss to the whole community.

Mr. Rogers was born in Menominee, in 1870, and while still a young man went to the west and settled in Washington, where he soon became prominent in the lumber world and widely known as a man

The late W. S. Rogers, manager of manufacturing of Canadian Western Lumber Co.

of exceptional executive ability, with an especial aptitude for handling large concerns. For several years he was the active head of the Anacortes Lumber & Box Company and was also manager of the Columbia River Lumber Company, Golden, B.C. It was as general manager of the Canadian Western Lumber Company, however, that he became most widely known to the lumber world of the Pacific Coast. He was prominently identified with the Weyehaueser interests and was manager of the Everett plant of that company from 1900 to 1906.

Mr. Rogers was a prominent mason and was also identified with the Elks.

Opening the Pacific-Atlantic Lumber Trade

A direct steamship service between Puget Sound and Boston has been inaugurated by the Steamship Atlantic of the Emery Steamship Company which sailed out of Boston recently with a general cargo, to its full capacity of 9,000 tons, for Pacific Coast ports. It will return with a cargo of Oregon fir. The Pacific, a sister ship of the Atlantic is nearly completed and is expected to be ready for its first voyage within a few days. These ships are each of 9,000 tons and were specially designed for lumber carrying. The first cargo of Oregon fir is expected at Boston early in November. Several eastern firms have already sent representatives to the mills around Puget Sound to look over the situation and make preliminary arrangements for bringing cargoes of Oregon fir to Atlantic ports by way of the Panama Canal. It is expected that the Atlantic's first cargo will be about 2,000,000 feet at least. Her cargo for the Pacific Coast includes about 7,000 tons of steel shipment to Boston by rail from Pittsburgh. Mr. Frank W. Lawrence, of Lawrence & Wiggin, wholesale lumber dealers of Boston who have been active in developing this trade states that he believes freight rates can be kept at a point that will make the selling radius extend as far west as Chicago.

Recent Ontario Timber Sales

Several sales of timber berths were recently completed by the Ontario Department of Lands, Forests and Mines as Follows:—

Certain limits in the township of Dana, to Geo. Gordon & Company, Cache Bay, Ont., at the following prices: red and white pine $4.10 per thousand feetin addition to the Crown dues of $2 per thousand feet.

Township of Marshay to Duncan McLaren, Toronto, at the following prices: red and white pine $4.65 per thousand feet; Jack pine $2 per thousand feet, each of these being in addition to the Crown dues of $2 per thousand feet; Jack pine tiese 8c per tie in addition to 5c per tie of Crown dues.

Three berths in the district of Algoma, to Austin & Nicholson; Chapleau, Ont., as follows:—

W. D. 5: red and white pine $4.75 per thousand feet, which includes Crown dues; Jack pine $3.25 per thousand feet, which included Crown dues; spruce $3.50 per thousand feet, which included Crown dues; Jack pine ties 8c per tie, which includes Crown dues.

East half of township 24, range 22; red and white pine $4.75 per thousand feet, which includes Crown dues; Jack pine $3.50 per thousand feet, which includes Crown dues; spruce $3.50 per thousand feet, which includes Crown dues; Jack pine ties 8c per tie, which includes Crown dues.

Northwest quarter of township immediately east of township 24, range 22: red and white pine $5 per thousand feet, which includes Crown dues; Jack pine $3.50 per thousand feet, which includes Crown dues; spruce $3.50 per thousand feet, which includes Crown dues; Jack pine ties 8c per tie, which includes Crown dues.

B. C.'s Forest Revenue for August

The total amount of forest revenue of the Forest Branch of the B. C. Lands Department for the month of August, 1914, was $150,698.80, which was made up as follows:—

Timber Licence Fees	$118,656.15
Timber Licence Transfer Fees	150.00
Timber Licence Penalty Fees	1,430.00
Timber Lease Rentals	4,636.15
Timber Lease Transfer Fees	20.00
Timber Mark Fees	55.00
Handlogger Licence Fees	875.00
Scaling Fees	1,042.01
Scaling Expenses	39.80
Timber Royalty	15,593.68
Timber Tax	2,571.70
Trespass and Penalties	882.34
Timber Bonus	4,437.00
Exchange	1.11
Miscellaneous Revenue	8.75
Timber Sales Rentals	116.88
Timber Sales Cruising	77.58
Timber Sales Advertising	29.60
Seizure Expenses	46.05
Scalers Examination Fees	30.00
	$150,698.80

Collections for the Forest Protection Fund from Timber Licencees, Leseees, etc.	$10,742.44	
Contributed by Provincial Government	10,742.44	21,484.88
The Forest Protection Expenditure during month of August amounted to		$69,394.80

The total amount of timber scaled in the provincial districts was as follows:—Saw logs 77,344,307 feet B.M.; piles and poles 624,497 lineal feet; railway ties, shingle bolts and cord wood, 30,040.99 cords. The quantity exported was as follows:—5,875,804 feet B.M. of saw logs and 161,400 lineal feet of piles and poles.

Timber sales for the month of August amounted to 2,854,000 feet B.M., and 1,856 ties, the estimated value being $4,852.29.

Mr. W. J. Foye, of Omaha, Neb., was a recent visitor to Toronto.

Business Points of Value to Millmen

Well-Known Salesman Offers Suggestions and Criticisms, and Views the Manufacturer From the Retailer's Standpoint

By J. W. H.

We hear many complaints from retail lumbermen regarding deliveries made by our friends in British Columbia. In fact the opinion held by the retailer of the business acumen displayed by some of these friends is not of a very high order. The chief trouble is delivery, and failure to keep promises. Many other causes for complaint are heard, and a recital of a few of these complaints might at this time be opportune in order that the millmen may be able to clean house during the next few months.

The lumber industry of Canada is probably one of the most liberally advertised industries in the Dominion, and in order to get the full advantage of that advertising it must be backed up by service. Your customers are probably buying from you because he considers that you give him better service than the other fellow can. In order to hold that business you must continue to give them service, otherwise you will be in the unhappy position of watching your business go across the road to your competitor. The lumber industry must follow the lead of the large department stores in the cities, and literally speaking, ship the order on the same day. The majority of retailers are cutting their stocks to the lowest possible point, and when they order they usually require the goods delivered at once. It is therefore up to the millmen to speed up their office departments, as in nine cases in ten it is found that delays in shipment are caused in the office. Many firms consider the office a necessary evil. It is nonproductive and is usually carried as a burden charge when making up cost of production. We claim that the office, if well managed and run on progressive lines, will be the means of making the business a success. Too often we see firms starting in business in which the principals are practical men and nothing more. They are able to manufacture excellent products, but are unable to sell those products because none of the principals have sufficient business acumen. In order to make money you must sell goods. Many firms say "Why, we should sell more lumber than our competitors, because we have the best sales department in the business. We are paying more money to get business than any of the other firms." But then the following quetsions arise: Are you getting a fair return from the money you have invested in that sales department? Are your salesmen taking advantage of every opportunity to make your firm indispensable to your customers? Are they getting all the business they should? Do you furnish them with a stock list each week advising them what you have on hand, and what stock you desire moved quickly? Do you back your salesmen with the promised delivery?

We will now deal with these questions separately.

The Personal Trade Fallacy

Are you getting a fair return for the money invested in your sales department? This question can best be answered by referring to your books. Look into the record of each man, and see whether you consider that he is earning the money that you are paying him. You must at the same time take into consideration trade conditions generally, for it is not good business for your salesman to load up a customer with material that he will not be able to move for some time. Actions of this nature, although they help to swell the salesman's record, are inclined to leave a bad taste in the mouth of the customer, and he will be careful when ordering from your firm again. While your man is signing a contract, he should be thinking of the orders your firm expect to get from this man in the future, and doing the ever necessary missionary work connected with each sale. This too will answer the next question: Are your salesmen taking advantage of every opportunity to make your firm indispensable to your customers? The salesman is the mouthpiece of the firm. He is the man who comes in contact with the customers. If he does not treat your customers as you would yourself, then he has failed in his object. He should be the representative of your firm, and carry out its policies consistently. Many firms consider personal trade in a salesman a very desirable thing. By personal trade we mean that business that is supposed to follow the salesman wherever he is employed, and many salesmen will make this point a strong one in applying to you for a position on your staff. The writer has had considerable experience with salesmen who have claimed to have personal trade, and generally speaking they were good fellows who did most of their business over hotel bars. Now business of this class is not worth the paper it is written on, as some other good fellow with a little more money to spend is liable to come along and land the next order. Now a salesman is expected to be sociable, yet at the same time he should not consider sociability to be his chief stock in trade. Your salesman should not be allowed to build up a business for himself. You are employing him and therefore you should see to it that he employs all his time building a business for you. Personal trade counts for nothing unless the man can hold the business and assure you that he can.

Missionary Work and Advertising

Are they getting all the business they should? Each week your men should turn in to your office a list of customers that they have called on. Also of any new prospects in the direction of any development work contemplated, for which plans are in progress. This should be done in order that you may keep posted, and also that you should be able to keep in touch with the principals of the new work through the medium of your advertising department, and the mails. You should constantly endeavor to get news of new work planned, and send this to your salesmen. You will find that in this way you will increase the efficiency of your sales force. Many firms consider their men are armed with a sort of magic wand, by means of which he can produce orders at will. But it will soon be seen that co-operation with the sales force will increase their efficiency, and with that increased efficiency they will of course be able to turn in to your office a larger volume of business.

Missionary work is the work that must be done before a sale is made, and under this heading the most important factor is advertising. By advertising you make your firm known to the many people interested in your products, and when your salesman comes along you are already known to these people. Your prospect knows the class of goods that you specialize in. This in itself will save your man time. Then again the standing that advertising gives a firm counts for a great deal. Many firms advertise in a paper because it is their trade journal and they support it for that reason, and that reason alone. They consider that all papers are blood suckers and blackmailers and give out their advertising as if they were paying hush money. A trade journal justifies its existence by the fact that it tells you what the other fellow is doing and often tells you how he does it. It keeps you up-to-date and shows the latest methods of doing business. The advertising pages of any good trade journal will introduce you to the best and most progressive firms in the business. Please do not consider your trade journal an evil. If it was it would not have lasted so long as it has, and probably some firms would not be using the up-to-date methods and labor-saving devices now in use. Therefore you must consider that journal one of the greatest assets you have in the industry.

Personal letters written from time to time to your customers will give him the impression that you will give him personal service, and will pave the way for your salesman. These letters should be short and state in a few words all that you want to say. Your advertising man can look after this work. The chief object of these letters is, of course, to let your customer know that you are still doing business at the old stand, and that you solicit his enquiries. This is a very important feature, and care should be taken in composing and also in mailing these letters. Your salesman undoubtedly covers territory in which you have a number of customers. He will no doubt visit each town at a certain date, and the advertising department should time those letters to get to the customer a few days in advance of your salesman. By doing so you will aid him materially in his introduction.

Salesmen spend the greatest part of their time in finding a buyer. They should therefore endeavor wherever possible to find out what the other fellow knows, and many good leads can be obtained from the most unexpected sources. It is surprising the amount of new business a salesman can get who is of an inquisitive turn of mind, and many large orders have been booked by men who were able to worm out information before it was generally known.

Stock Sheets for Salesmen

The next question speaks for itself: Do you furnish your salesmen with a stock list each week? This you will find an excellent means of selling slow moving stock, and as your salesman is the man you depend on to move those goods for you, why should he not be advised approximately how much you can handle. The claim has been made that the millmen do not know how much stock of each size of lumber they have on hand themselves. So how can they be expected to advise their salesmen? In fact a case in point would indicate this to be the case. A retailer went to the yard of a well-known millman, saw the stock he wanted, and told the millman that he would send a team to get it. The team was sent within a few hours, and after remaining at the yard for half a day returned with the intima-

tion that they had no such stock on hand. The retailer, to satisfy his curiosity, journeyed again to the yard and found that the stock that he had selected in the morning was still lying in the yard where he had previously seen it. This instance would indicate something radically wrong with the stock keeping department, and incidentally something wrong with the management. The delivery of orders is the final process, and we venture to say the most important. Many firms have lost good business reputations through slow delivery, or rather failure to keep the promised delivery date. We will put the shoe on the other foot for a few minutes and then we shall see how it fits. Suppose, for example, the crank shaft or any other vital part of your main engine was to break, you would at once wire for a new one to be shipped to you at once and you would get everything ready in order that this part could be replaced on arrival. Now the firm you wired to could not ship for ten days or two weeks, did not advise you of this fact, but simply accepted the order and let you wait. You would not have a very good opinion of them, and would undoubtedly go somewhere else on the next occasion. If you are unable to make delivery when called for in the order the first duty you owe to the customer is to advise him of the fact. He will think more of you if you treat him the way you yourself would like to be treated. If a man asks for delivery in two months he wants it then, not three weeks or a month later. Had he wanted it then he would have said so in the order.

Value of Complaints and Criticism

A few words regarding the duties of the manager. He should be supreme head of the business and as familiar with the work in the office as he is with that in the mill. He should make a rigid periodical inspection of each department. Only by doing this can he hope that the organization under him is working smoothly. He should see that there is no friction between departments, and while it is hardly possible for him to keep in touch with each order, yet he can demand from each department a report to the work done each day. And above all he should demand that every order behind schedule should be reported to him at once in order that he may give it his personal supervision. Pay attention to complaints and do everything in your power to obviate others of a like nature. When a man complains he is criticising your business. Look into these criticisms. It will pay you.

Canadian Western Report Shows Improvement

Considerably less lumber was manufactured by the Canadian Western Lumber Company, Fraser Mills, B.C., according to its monthly report, during July, 1914, than in the corresponding month of 1913, and less than in June, 1914. Sales produced $169,601, the amount of lumber sold being 11,931,000 feet. Out of 80,170,000 feet of lumber manufactured since January, 75,673,494 feet have been sold, the price realized being $1,117,841. This compares with $1,791,871 twelve months ago. In June of this year the amount of lumber manufactured was 16,748,000 feet, of which only 9,782,000 feet were sold, producing $140,507.

The statement of operations is as follows:—

July	1914.	1913.	Decrease.
Feet manufactured .	12,939,000	21,981,000	9,042,000
Feet sold	11,931,000	13,406,000	1,475,000
Price realized	$ 169,601	$ 234,497	$ 64,896
Seven months.	1914.	1913.	Decrease.
Feet manufactured .	80,170,000	115,139,000	34,969,000
Feet sold	75,673,494	104,685,000	29,011,506
Price realized	$1,117,841	$1,791,871	$ 674,030

Lumber an Important Item of Sweden's Trade

Next to agriculture the forests of Sweden form the largest source of income. In point of value, lumber and lumber products form the largest single item of exportation from the country. In 1913 over 8,276,665 cubic yards of hewn, sawed, and planed lumber were exported from Sweden, besides $1,146,772 worth of joinery products. Large quantities of wood are consumed in the manufacture of wood pulp for export and for the domestic paper mills. Despite the heavy domestic production and exportation, Sweden imports considerable quantities of firewood, masts and spars, and certain hardwoods. In 1912 (the latest statistics available) the importation of firewood amounted to 115,340 cubic yards; masts and spars, 443,079 cubic yards; aspen wood, 70,713 cubic yards; mahogany, 2,429 cubic yards; other foreign woods, 1,656 cubic yards; lumber, sawn, 36.827 cubic yards; other more or less worked, valued at $876,315; veneer of mahogany, 201,803 pounds; veneer of walnut, 165,508 pounds; other veneer, 418,290 pounds. The importation of wood from the United States, mainly pitch pine and hardwoods, amounts in value to approximately $100,000 per annum.

The Robert Dollar Delayed at Rio de Janeiro

The Canadian Government has interested itself in the case of the steamer Robert Dollar, which the British Consul at Rio de Janeiro refused to clear because it had come in under the new American registry law. The Robert Dollar was registered at Ottawa, and the Canadian Government failed to notify the British Consul at Rio when the ship was turned over to American registry under the emergency law enacted to attract ships of the belligerent nations to the American flag. The British Consul refused to recognize the ship as an American vessel, and consequently it has been held in Rio at great expense to its owners, the Robert Dollar Steamship Company of San Francisco. The Robert Dollar is carrying a cargo of timbers from British Columbia, which are to be used in the harbor improvement works at Toronto.

Creosoting Industry Affected by War

The use of creosote oil in connection with the preservation of timber has grown to such large proportions that the wood preserving industry in North America is seriously affected by shortage of of stocks of creosote oil as a result of the war. Pacific Coast States, in which a great quantity of creosote timber preservation is carried on, are very short of this oil, and, at the same time, many important harbor developments are being planned which will require a greatly increased supply. Last year, thirteen plants on the Pacific Coast imported 4,844,053 gallons of creosote from Europe as compared with the use of 152,000 gallons made in the United States. This oil was used by thirteen plants treating 2,624,958 railroad ties, more than 2,286,000 feet of piling, nearly20,000 poles, about 171,000 square yards of paving blocks and 8,171,589 feet of timbers.

Dry Weather Causing Fire Danger in B. C.

Reports received early in September from British Columbia points stated that four forest fires of considerable size were then engaging the attention of Dominion forest fighters, the most serious being near the Chilliwack River, which however, had been successfully placed under control. Another fire near Huntington was reported to have crossed from United States territory. The third fire in the vicinity of the Timberland Lumber Company's plant was confined to logged-off lands. A long dry spell of weather had rendered the entire country dangerous from the forest fire point of view and the various forestry departments were anxiously watching the whole situation.

Work of the Forest Products Laboratories

Some native species of trees, little used until now, will be tested at the Forest Products Laboratories at McGill University, Montreal, to see whether they are suitable for pulp and paper manufacture. For this purpose the largest non-commercial paper machine in the world will be installed. The work is under the direction of the Dominion Forestry Branch. Detailed records of the process of manufacture of the different grades of paper will be kept. In this way Canadian pulp and paper manufacturers by adopting the same methods may achieve similar results. Another very important feature of the work of these laboratories will be the investigating of various methods of wood preservation. By such processes the life of railway ties, posts, poles and construction timber will be in some cases doubled. It is expected that it will be proved possible to use many of the most common Canadian woods for purposes to which, except for their non-durability, they are admirably adapted. Birch, for instance, if treated with creosote or zinc chloride, or with a little of both of these preservatives, makes an ideal railway tie or paving block, being cheap and also very resistant to the wear and tear of traffic.

Forest Protection on Lower Ottawa

The Lower Ottawa Forest Protective Association, which was organized last spring, has had a very active season, due to the dry period of May, July and August. The association employs 49 permanent rangers, four inspectors and as many temporary laborers as may be required for the control of individual fires. During the dry spell in May, more than 500 extra fire fighters were on duty at one time in the employ of the association. Since the organization of the association the area protected by it has been increased by 2,000 square miles, through the accession of new members. The total area now guarded is 11,812 square miles, or upwards of 7,500,000 acres. The association has recently secured convictions against 40 settlers in the Ste. Agathe, Mont Laurier, and Maniwaki districts for setting fires. In all probability, the excellent results secured by the Lower Ottawa and St. Maurice associations will lead to the formation of similar associations in other sections of the country.

Electricity in Logging Operations

Advances Which Have Already Been Made—Probable Important Development in the Near Future—Advantages over Steam Power

By Andrew Bloom *

The early settlers of this country built their houses from logs and split or hewed from the log such material as was absolutely necessary for the primitive furnishings of roofs, windows and doors, but as civilization progressed need of greater quantities of lumber began to be felt and seeing the possibility of financial gain, some of the most enterprising settlers began to specialize in furnishing their neighbors with different kinds of lumber needed. Such was the beginning of the lumber industry in this country and the ever-present and most important problem in connection with this industry has been, and now is, the problem of preparing and transporting logs from forest to mill. This problem has presented different aspects according to locality. In countries presenting a comparatively level surface as in the states of Maine, Michigan, Wisconsin and Minnesota, where roads could be built as close to the timber as was deemed necessary, the problem of transporting logs from the stump and assembling the same on skidways was usually the easiest part of the logging operation. The main problem being how best to transport the logs from skidway to landing. Where the country was dotted with lakes and swamps, where the chief means of locomotion was oxen or horses, where the logger had to depend upon cold weather and a short season, it required considerable forethought and an unlimited amount of energy and hustling to clean the skidways before the breakup in the spring. But as the logger gradually worked his way further into the forest and the distance to the landing correspondingly increased, it became apparent that the horse would be unequal to the task of profitably hauling over the long roads and that some means must be found whereby several loads could be transported at one time. This led to the introduction of the steam log hauler. The horse up to this time having been the only means of transporting logs, it was but natural in developing the steam log hauler that the inventor's mind should be bent to imitate his mode of locomotion. Propelled by a great drum to which gigantic horse shoes were fastened intended to firmly grip the ice surface, with five or six great loads of logs trailing in its wake, the steam log hauler created considerable interest among the loggers and some of them felt sure that a lasting method of cheap log transportation had been found; but for several reasons the steam log hauler proved to be more of a curiosity than anything else. I can remember how, after returning from an inspection of a steam log hauler which was operating in northern Wisconsin, one prominent Minnesota logger declared that he was going to have a steam log hauler too, but, he said, "I am going to put rails under mine;" and thus did the logging railroad come into general use.

Although the above is all history, I have referred to it simply to point out the difference in problems confronting a logger. In this mountainous region the conditions are entirely reversed. The logging railroad is built as far as the topography of the country will permit and after that it is up to the operator's ingenuity to devise ways and means to bring the logs down the slopes of the mountains to the track, a distance which may vary from one-quarter of a mile to two miles or more. To accomplish this work economically several methods are in use. Where the distance is not very great and where the stand of timber is heavy and the ground comparatively level, horses are as cheap a means of skidding logs as any, but where the distance is over a quarter of a mile steam donkeys have proven to be the best and most reliable means of getting logs to the skidways; but on account of the difficulty of hauling logs along the ground, over hills or down a hillside, this method has not proven altogether satisfactory and it has been the ambition of the logger to evolve something better, if possible. To judge from the number of papers read before last year's Logging Congress by some of the most up-to-date loggers, it is clear that the idea of transporting logs by suspended cableways is not any one man's idea but seems to have developed simultaneously in many men's minds. This would be natural, for you all know how many times you have stood looking anxiously at the nice timber high up on the mountain side and instinctively you said to yourself that the only way that timber can be brought down is by an overhead cable of some sort, your mind set itself to work out the problem and thus we find different systems, each designed to meet the requirements of local conditions.

The Potlatch Lumber Company having equipped to operate their Elk River sawmill by electricity, the late Wm. Deary, then general manager, conceived the idea to utilize the extra energy for operating logging donkeys and accordingly an order was placed with the Willamette Iron & Steel Works, of Portland, for the construction of two electric logging donkeys. These machines were fuly described in papers read before the last year's Logging Congress by E. J. Barry, electrical engineer, and by E. F. Whitney, the Portland representative of the General Electric Company, and therefore, I will only comment briefly in a general way on the performance of these machines during the past year.

In the operation of any kind of machinery the first consideration to be taken into account is the practicability and economy in operation, and these questions would naturally suggest themselves to any one that is interested in the subject of log transportation, and in this as in everything else local conditions must be the determining factor. Had it been necessary to develop power especially for electric logging or to buy it from some commercial power company and transmit the same a long distance it would be perhaps safe to say that the cost of electrical application to logging would be prohibitive, for the present at least, but in our case where the power was already developed, where the distance from the power house to the scene of operation was only three and a half miles, where the initial cost aside from the donkeys was merely the cost and installation of the transformers and the construction of the power line at a total of not to exceed $8,000, it was but natural that we should be willing to try the experiment and I can truly say that in view of the experience we have had so far with the electric donkeys, they have fulfilled every expectation. To say that we have not experienced any trouble would not be stating the truth, as we have had breakdowns and difficulties of different kinds, most of them due to mechanical defects, which naturally will develop whenever something new is tried and which only time and experience can overcome. As has been pointed out by Mr. Barry in his paper previously referred to, the cost of operating an electric donkey as against a steam donkey is greatly in favor of the former. The electric donkey is operated by two men, the motorman at $3.75 and the hoisting man at $2.75 per day, making a total of $6.50 in wages per day as against a daily operating cost of $11.25 for the steam donkey—engineer $3.50, fireman $2.75, wood bucker $2.50, night watchman $2.50, and in addition to this it is often necessary to employ an extra man for wood cutting. Next comes the cost of hauling and stumpage for wood, the last item sometimes amounting to more than all the other expenses taken together as it oftentimes happens that on some settings there is no dead timber suitable for wood, and it becomes necessary to burn white pine that would bring $20 per thousand and upward. The cost of the fuel for the steam donkey would, of course, be partly offset by the cost of current for the electric donkey, which in this instance amounts to 6½ mills per kilowatt hour, the figures being the cost figures as charged against the plant and includes interest, depreciation, insurance, taxes, salaries, oil, etc. The daily consumption of electric current averages 366 kw. hours per donkey at a cost of $2.37. Aside from the advantages mentioned in favor of the electric donkey, the one conspicuous item is the absence of fire risk in the dry season and it is only those who have been menaced by forest fire, as we have for the past five weeks, that can fully appreciate how satisfying it is to feel that when the day's work is done you can leave an electric donkey and be absolutely sure that as far as any fire originating from this source is concerned, you can be sure to find it the next morning just as you left it. This factor will be appreciated more and more according as the timber grows more valuable and will be sure to be taken into consideration by the future logger. Another advantage in the electric donkey is the ability to operate without the use of water, and, according as the timber tracts suitable for ground line logging are cut, the necessity for sky-line logging on steep mountain sides will become more and more apparent and in such places where water is not to be had electric power will be a real necessity.

I also venture to predict that in a short time where electric power is available, the scarcity of suitable labor for falling and cutting trees into log lengths will cause the resourceful logger to invent some device light and portable enough to make it possible to do such work by electricity and just as it has supplanted many other forms of energy and been of inestimable value to mankind in almost every field of its endeavor am I confident that electricity will gradually supplant steam as motive power in the logging industry.

In order that sky-line logging may become a complete success much will depend upon the trolley for carrying the logs, and this part

* Address delivered before recent Pacific Logging Congress.

is now receiving attention from manufacturers as well as loggers on the Coast and elsewhere. The Potlatch Lumber Company is just about to try out a trolley built according to the idea developed by our Mr. Jones, logging superintendent at Bovill, but as yet it is too early to say whether it will prove to be a success or not, but the main idea is to be able to operate it by the haul-in and haul-back lines only and to use a single line for the load and to have such a large working radius that it will only be necessary to move the main line half as often as at present. I sincerely hope that some one will come forth who has been more successful in this direction than we have, but in the meantime we will continue our experiments.

Advertising Lumber to the Factory

Very little relation exists between the class of forest products advertising that is intended to educate the general public to the more extensive use of wood as a building material and the class of advertising that may be calculated to produce a demand for lumber for factory consumption. Inasmuch, however, as any complete advertising campaign in behalf of forest products must take into account the marketing of all woods, and of factory lumber as well as other grades, due consideration must be given to the importance of reaching the factory buyer.

Lumber buyers of this class know—or think they know—what they want in the way of grades and varieties of stock. More often than otherwise they think they know, and there is no field where prejudice is a greater barrier to the introduction of new materials or where there is greater inclination to demand stock that is not especially suited to the purpose involved but which has been used from time immemorial and therefore is regarded as good enough.

Every lumberman who sells this class of trade knows that the introduction of a new wood for an old purpose is fraught with trouble and that only long, arduous effort and low prices combined will do the work.

It is to the best interest of the lumberman and the consumer that lower grades and woods of inferior value be used wherever they can be employed with satisfactory results. Nearly always it is true that there is ample demand for high grade lumber and very frequently the chief difficulty of the manufacturer is to move the lower grades. At such times the buyer who demands a better grade than he needs is contributing to an abnormal and unsatisfactory market condition and is wasting his own money.

In the factory field advertising must be designed to instruct the buyer with reference to the uses of various woods and of the various grades of such woods, but it must be borne in mind that the buyer who thinks he knows resents the insinuation that he does not know. Hence such educational work must be diplomatically handled to produce the best results. The buyer who has always used cork pine for a purpose to which woods now less expensive are adapted, but who clings to his demand for cork pine simply because he is afraid to change, must be made to understand that economy in his own business and the conservation theory as well require that he accept some other lumber and that he leave the white pine for the buyer who really requires it.

One of the greatest needs in connnection with this department of a general campaign is a standardization of lumber grades—something that is fairly well accomplished in the softwood trade, but far from realized in hardwoods. When such standardization exists it will be possible through judicious advertising to acquaint the factory buyer with lumber grades and by such educational process to eliminate much of the sleight-of-hand work that exists to-day. It is but natural that confusion should result when the factory buyer finds that no two of the lumber concerns with whom he deals agree as to the grade or kind of lumber he ought to buy, and it is still worse when he finds that they disagree in practice as to the specification of a particular grade.

In this field especially is room for practical and profitable experimenting to the end that the uses of the various woods and grades may be authoritatively determined. What woods, for example, make good butter tubs? What woods are suitable for wine casks? What wood and what grade can be used to best advantage and with least waste in the manufacture of a certain step-ladder? What wood makes the most satisfactory core for a piano case? What wood will best take and hold an ebony finish? A thousand such questions come up every day in the wood-using factories of the country and a very large percentage of these questions, when answered, would furnish a splendid basis for good advertising copy.

No other material is so generally used in manufacturing operations and so little understood. The fact that practically every branch of industry employs wood to some extent, of course, renders it impossible for the lumber industry to advertise its products in such way as to reach all classes of consumers or to undertake the education of all, but it should be possible through publicity to correct erroneous ideas held by important consumers; to bring out the fact that there is plenty of good lumber for all purposes, and that there is no economy in using better lumber for any purpose than is needed, and to teach the buyer that the moral hazard involved in buying from irresponsible concerns can be dispensed with.

Had the lumber industry been equipped with efficient facilities for spreading dependable information about wood, steel and aluminium would not have displaced yellow poplar in the automobile body industry. If efficient publicity facilities were available to-day many other classes of factories would be adding to their woodworking machinery equipment rather than discarding it for metal working tools. In this field, as in the field of the ordinary consumer, the idea has taken firm root that the supply of lumber will be at an end shortly and it is, of course, the business of every manufacturer of substitutes to confirm this impression at every opportunity. Factory buyers also are generally puzzled over the question of grades, largely because they fail to discriminate between responsible and irresponsible sellers and through dealings with the irresponsibles acquire the notion that a car of lumber is a dependable quantity only after it has been inspected at destination.

It is not the business of the lumber manufacturers of the country to guarantee each individual manufacturer's grades, but there should be in the lumber business, as there is in the steel business, some established standard and some recourse for the buyer who finds that he has not been fairly treated. Inasmuch as these problems have been worked out by associations representing manufacturers of certain kinds of lumber it is not unreasonable to suppose that a system of standardization might be worked out in such way for all kinds of lumber sold by those who are participants in the proposed campaign. Advertising in this field also should be devoted to some extent to the task of cleaning up unethical trade practices and placing upon them the stamp of disapproval of the industry, and as rapidly as it is possible to effect such a radical change in practice the responsible manufacturer should be urged to brand his output in some way so that lumber handled through legitimate and responsible channels may readily be distinguished from lumber that is just lumber and nothing more.

Advertising in this field should serve to convince the factory consumer that the lumber industry places at his disposal its best facilities; that it is prepared to furnish him the stock he needs in his business, to insure the performance of its contracts, and in other ways to protect him in his lumber transactions as fully as he is protected in the buying of other commodities.—American Lumberman.

New Hardwood Lumber Directory Issued

A new edition of the Hardwood Lumber Directory or Buyers' Guide, issued by the National Hardwood Lumber Association is now ready, and copies have been sent to members. The membership list included in the directory is the largest and the strongest ever presented by the Association. The support of the Association in Canada is growing surely and steadily, as is demonstrated by an appreciable increase in the Canadian list of members. The demand for national inspection, and the calls upon the service departments of the association from Canada have been much greater during the past year than ever before.

Newcastle Trade Doing Well

E. A. McCurdy, Newcastle, N.B., manager of the Royal Bank of Canada at that place, reports that the lumber business is flourishing at Newcastle. Prices are more profitable than they were a year ago even with the added cost now of war risks and increased freights. The lumber from the Baltic has been cut off, which has decreased the supplies, and left more room for the product of Canadian forests. Another industry that is more prosperous because of the war is the manufacture of hemlock bark extract for tanning, a factory for which is located at Newcastle. Prices of this product are higher than before the war.

Ontario Workmen's Compensation Board at Work

The Workmen's Compensation Board for the province of Ontario held its first session on September 21st when plans were discussed for the active work of the Board. Mr. F. W. Hinsdale, the Washington expert, who was employed by the Ontario Government in getting the organization into shape was also present at the meeting. The first and most important task at present before the Board is to determine the provincial assessment upon industries that will provide the initial fund. The Board has not yet decided whether to assess on the basis of last year's wage roll or the estimated roll for next year.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

For Sale–Lumber

For Sale

St. Frances Valley, Arkansas, Band Sawed Red Gum, dry, choice stock, all grades. Inspection guaranteed under National Rules.

The Crittenden Lumber Company,
19-22 Crittenden, Arkansas, U.S.A.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¼ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale–Machinery

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

WOODWORKING MACHINERY FOR SALE:—1 24-in. Ideal planer, matcher and moulder; 1 No. 1 Ballantine power feed dowel machine; 3 upright power mortisers; 1 Goldie & McCulloch 2 spindle wood shaper; 2 Ideal variety saw tables; 1 42-in. Fay & Egan power feed band rip saw; 8 30-in. Ideal pedestal bandsaws; 1 36-in. Egan double drum sander; 2 10-in. four side moulder; 1 12-in. Crescent jointer; 1 No. 51 Crescent universal woodworker. H. W. Petrie, Limited, 19

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED a competent man to look after bush operations. Apply, F. W. Brennen & Company, Hamilton, Ont. 18 21

Business Chances

Retail lumber business for sale, a going concern, prospects good, splendid chance for live man. Apply Geo. W. Mortimer, Niagara Falls, Ont. 18-20

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Sale of Pulp Timber

Sealed tenders will be received by the Minister of Lands at Victoria, B.C., not later than noon on the 30th day of November, 1914, for the purchase of nine (9) pulp licenses, situated on the Coast of British Columbia, and estimated to contain the following:—

Hemlock..	87,301,000 ft. B.M.
Balsam Fir	44,444,000 ft. B.M.
Spruce	43,244,000 ft. B.M.
Cedar.	27,779,000 ft. B.M.
Douglas.. Fir	2,779,000 ft. B.M.
Total	205,547,000 ft. B.M.

This timber is within ten miles of salt water and is tributary to Vancouver.

Thirty (30) years will be allowed for the removal of the timber.

For full particulars and maps address H. R. MacMillan, Chief Forester, Victoria, B.C. 17-20

Miscellaneous

Portable Mill and Complete Camp Outfit For Sale

50 H. P. engine and locomotive boiler mounted on skids, only used three months. 54-in. circular saw mill, three saw edger, cut-off saw, shingle mill, belts, shafting, pulleys, etc. Also camp outfit, blankets, sleighs, waggons, chains, etc. Will sell right. Terms arranged or will take lumber in part payment.

C. H. ROGERS,
Care Peterborough Canoe Company,
18-21 Peterborough, Ont.

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

The Fireproofing of Wood

Fireproofing of wood was known even to the ancient Romans, who tried to make their wooden towers and defences less inflammable by coating them with vinegar or alum solutions. Covering wood with a fireproof coating serves only to surround it with an insulating coat, making it difficult for fire to reach the wood, which is necessary for combustion.

Most important requirements of fireproofing solutions are durability and power of expansion. Wood expands and contracts with changing temperature, and the fireproofing solution must keep step with the wood or else lose its protective powers. Wood is hygroscopic, and coating must not peel off through moisture. Another requirement is sufficient porosity, as there must be constant balance between air and wood, otherwise the wood will decay.

In the vacuum process the wood is placed into air-proof chambers from which the air is exhausted. Then an impregnation liquid, usually a mixture of ammonium sulphate and ammonium borate, is pumped into boilers. Pores of wood being in a vacuum and void of air absorb the mixture, and the wood is then dried in open air. Wood impregnated in this way is fireproof down to core, and is fireproof even after ten years, as tests have shown. It suffers a trifle in its elasticity through the process, but compressive strength is increased materially. Wood does not change its structure or color either, thus keeping it useful for interior decorating.

Steel is not substituted for wood in the building of ships for certain purposes. The little vessel in which Sir Ernest Shackleton will shortly sail from England en route to the South Pole is well named the Endurance, for she is built to endure, in sturdy oak and plant pitchpine. Her "wooden walls" are two feet thick of almost solid oak, and at stem and stern there are five feet of the same tough timber.

Creosote apparently does not preserve peace. England and Germany are the leading producers of creosote oil. The war finds the Pacific Coast States very short of this oil and with extensive port developments demanding a greatly increased supply. Last year thirteen plants on the Pacific Coast imported 4,844,053 gallons of creosote from Europe, as compared with the use of 152,000 gallons made in this country. This oil was used by thirteen plants in treating 2,624,958 railroad ties, more than 2,286,000 feet of piling, nearly 20,000 poles, about 171,000 square yards of paving blocks and 8,171,589 feet of timbers.

Car Surplus Decreases

A shrinkage of 24,520 in the net surplus of idle freight cars on the railroads of the United States and Canada on August 15, compared with the close of the preceding fortnight, is reported in the latest bulletin of the American Railway Association. The bulletin gives the net surplus of freight on American and Canadian railroads on August 15 as 172,145, compared with a net surplus on August 1 of 196,665. The gross surplus of freight cars on August 15 stood at 174,260, compared with 198,998 on August 1, while the gross shortage stood at 2,115, compared with 2,333.

The predictions that had been made that the congestion of export traffic in foodstuffs which has prevailed for the past two weeks would bring about an increase in the number of idle cars failed to materialize during the first half of the present month, although the shrinkage of 24,520 cars in the net surplus may be due somewhat to the fact that some cars have been utilized for storage purposes. The details of the report on the railway situation, however, reveal the interesting fact that the box car surplus on August 15 was larger instead of smaller than it was at the beginning of the month. The grain exports being congested at seaboard ports, it was generally expected that cars would be tied up all along the lines and thus produce a decline in the number

of available cars. The fact, however, that the trunk lines place a limitation to domestic bills of lading on shipments destined to export points may have averted that very situation.

A Chance for American Walnut

Things seem to have been "breaking" in favor of American black walnut of late, says Hardwood Record. Perhaps the walnut men are unusually shrewd, and have been looking ahead; or, on the other hand, they may merely be lucky. At all events, their proposition has been profittble from some of the trade developments that have been recorded rtcently.

Take the movement toward brown woods, for instance. It black walnut was being revived, and made it easy to get started on it. Now the European war has bobbed up, and one of the first results is a shortage of Circassian walnut, actual or potential. People who use this wood are tndeavoring to cover their requirements, of course, and may be able to get enough ahead to take care of their wants for the immtdiate future; but there is not a great deal of Circassian in the country, the stocks at Liverpool are light, and the movement from the Caspian Sea has already been cut off, according to reliabit information.

The natural result will be that those who have been using the imported walnut will turn to the American variety. It is possible to get effects with black walnut veneers that art not very far from Circassian, while both of them belong to the walnut family and the brown group of woods. It is hard to se, therefore, how the walnut men can help profiting from the latest development.

Of courst, if importations of mahogany, which can be supplied from Mexico and Central America as well as Africa, are seriously interfered with, there may be an even bigger rush in the direction of American black walnut, and quartered oak should be similarly helped. But there is not the definiteness to prospects in this connection that attaches to the Circassian walnut situation.

Laurentide's Forestry Survey

The Forestry Division of the Laurentide Company, Limited, has just finished a survey and map of 2,350 square miles showing all drainage, roads, portages and trails, lookout stations, telephone lines and timber conditions. This is the first complete map ever made of this section and in order to be of use about 500 square miles of contiguohs territory has been mapped. The average error of closhre of traverses is one in 300 and the scale of the finished map is two miles to the inch. Maps of each sertion of 50 square miles on a srale of three-quarters of a mile to one inch have also been completed showing the location and the amount of green timber, the burnt and cut over areas, etc. This company is also importing reindeer from Dr. Grenfell's herd in Newfoundland to take the place of sled dogs which are very troublesome to keep in summer and are not very efficient in winter. This experiment is being watched with much interest. If successful some of these deer will be supplied to the Indians who are finding the game supply getting pretty short.

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are prepared to examine and report on forest properties anywhere. Forest surveys, Logging maps, Timber estimates. Water Power, Water Storage, Topographical plans, Water supplies, Park Works, General plans for village sites and Private Estates. Railroad location and construction. Roads and Rivers improvements. Good informations concerning Quebec Timber and Mining lands, cheerfully given.

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Review of Current Trade Conditions

Ontario

It is hard to report any new developments in connection with the lumber trade in Ontario, yet one can say that there is a fair volume of trade, especially in the larger cities. The critical situation brought about by the war has not affected those people who are putting up large warehouses and the better class of dwellings. These people, in most cases, are able to command sufficient means to continue their work without interruption. The situation however, has affected those who are putting up smaller houses and particularly the speculative builder. These people cannot get the loans they require. As they constitute quite an important factor in the lumber trade, the result is a considerable drop in the movement of lumber. The trade resulting from the larger builders however, is keeping up a fair amount of movement and, while the volume is not as large as last year, and possibly not quite so profitable, there is a fair amount of trade. Wholesalers report a somewhat better feeling and a more general inclination to take a hopeful view. Hemlock is on the soft side and so is common pine. These have been selling off fractionally but prices in general are being fairly well held. British Columbia shingles are steady and unchanged.

The export trade at Ottawa is still quiet. It has been almost at a standstill for some time owing to the fact that 25 trans-Atlantic steamers have been taken off by the Dominion Government for use in transporting the Canadian contingent to England. Prices are unchanged and the probability is that they will continue so. There is a plentiful supply of labor and wages are low. J. R. Booth's mill is still closed down on account of lack of water.

Eastern Canada

Improvement is reported in the lumber trade at St. John, N.B. There is a fair local demand now for lumber and it is hoped that this may continue throughout the rest of the fall. Prices of all wood goods continue firm, particularly local prices. Stocks at present are large in some lines, but on the whole they are not as heavy as in 1913. A few mills only are operating at present. The American trade continues very unsatisfactory, and base prices for dimension have receded recently from $23.50 to $23, Boston rate. Latest reports indicate that the cut of logs on the St. John will be considerably smaller than in former years. Prices for English deals are strong and the indications are that 1915 prices will be equal to those of 1913 or 1914. Shingles are dull and hard to sell. The box trade is slow.

At Montreal, trade shows little change. Business is dull but a more hopeful view of the immediate future is developing. A few moderate sized contracts have been given out lately and others are pending.

Great Britain

Reports from importing ports in Great Britain state that a reaction has set in after the first burst of activity consequent upon government orders. As one prominent firm of importers puts it, "There is a natural and very widespread inclination to spend money, which reflects very quickly on the building and contracting trades." There is also a good prospect of Swedish supplies coming forward in suitable quantities since the Swedish Government has undertaken the war risk. This, it is thought, will have an important effect upon the attitude of importers in fixing their quotations. White Sea shipments have not come up to expectations. There are still three months during which cargoes may be shipped from lower Baltic ports however. It is important also to remember that Great Britain's two largest customers for sawn goods, outside of herself are France and Germany, which are now unable to continue their commercial business. Various important government measures which have been taken have done something towards restoring confidence and enabling steamers to be chartered from the White Sea, Sweden and Norway.

Considerable activity is still reported in the spot market at London, chiefly in connection with direct government requirements. Apart from these it is reported that the demand for wood goods at present prices is very intermittent. Spot goods are still advancing in value and good white pine and spruce are now difficult to obtain, although it is thought that shipments of spruce from Canada will be fairly plentiful between now and the close of navigation. Deliveries from London docks for the week ending September 5th amounted to 5,768 standards as compared with 7,980 during the corresponding week of 1913. At Churchill & Sim's recent auction sale 3 x 9 5th Quebec spruce brought £12 10s. and £12 5s. 3 x 11 first Montreal yellow pine sold at £46 and 3rds brought £17 10s. Three-inch Quebec birch planks sold at 1s. 7d. and 2-in. at 1s. 8½d.

At Liverpool, the curtailment of the supply from the north of Europe has directed attention towards Canada, and London and east coast firms which have also been finding their usual supply of Baltic goods reduced have been making efforts to secure substitutes. The Timber Trades Journal in its issue of September 12th says:—"While it is a fact that several cargoes of Canadian spruce have of late been sold to other United Kingdom ports than the West Coast at greatly enhanced prices, it is equally true that the Canadian export is limited, and it is a physical impossibility to materially increase it at the eleventh hour. In fact, we understand that practically all the Canadian product for this season is placed. Even if there were more available, tonnage would be an important factor with wheat taking precedence, although we have no doubt that if the timber were there, freight room could be secured at a rate which would compensate the operators when the enhanced value is taken into consideration." The spruce deal market at Liverpool continues firm and is expected to do so for the balance of the year. Stocks are very light compared with those of a year ago. One large firm of Liverpool importers of spruce deals are practically sold out of yarded stock and are dealing rapidly with cargoes now at sea. Very little movement is reported in Canadian pine deals with the exception of 4th quality, of which stocks are practically cleared out.

United States

There is little or no change to report in connection with lumber trade conditions in the United States during the past fortnight. Manufacturers in practically all sections of the country are showing a disposition to curtail their output and it is expected that the reduction thus caused will be much greater than the actual decrease in the export business resulting from the war. There is a fairly hopeful feeling that, when the first alarm wears off, building operations will resume to a fair extent. No increase is reported in the demand for Northern pine and hemlock. Country yards are only buying in limited amounts. The prices for pine are holding well at recent quotations. The hemlock trade appears to be rather dull. Reports from the mills however, are more favorable than a short time ago. Further decline in price is not expected. The yellow pine market is feeling the effect of the restricted export trade. Many of the southern mills are curtailing their output and there are no surplus stocks to menace the market. The movement of Northern pine is slow. Business seems to be very conservative and no one ventures to look very far into the future. Actual volume of movement in northern pine, while not large, is about as good as can be expected. Fundamental conditions are considered to be sound, as farmers are harvesting crops of normal volume and are obtaining good prices.

The hardwood trade reports slow business, but more encouraging prospects are reported than a short time ago. More than half of the southern hardwood mills are shut down and this restriction in the production is expected to result in firmness in prices. Stocks at northern producing points are not too large. Conservatism among larger buyers is holding things back more than anything else. There has been practically no repudiation of contracts, which is considered an excellent sign of a sound market. Among the northern hardwoods, oak has been a good seller. Birch is steady and in fair demand and the same applies to maple.

Argentine Timber Imports

Imports of unmanufactured timber into the Argentine from Canada during 1912 amounted in value to pesos 2,266,257 (a peso being equivalent to 96.5 cents of Canadian currency). The total import of unmanufactured timber into the Argentine for that year amounted to pesos 18,037,115, of which the United States supplied pesos 13,151,551, and Germany pesos 292,332. The great bulk of the importations of timber from Canada are made up of spruce. Of this timber Germany supplied 52,472 pesos worth in 1912. The importation into Argentina of manufactured timber amounted in value to 6,141,857 pesos. In this case the withdrawal of Germany's supplies will have a more appreciable effect; her sales amounting in 1912 to a value of 1,631,423 pesos, of which pianos accounted for 644,869 pesos, and furniture for 319,706 pesos. Canada's sales of manufactured timber to the Argentine were but inconsiderable.

View of Mills in Sarnia.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Trade Improving

St John, N.B., Sept. 21 (Special to the Canada Lumberman): Conditions in general round and about St. John, are no worse than they were two weeks ago. If any thing they are somewhat improved. A fair demand for local lumber has again come forward, and it is hoped that it will continue for the balance of the fall. Of course, as winter comes along, we cannot expect very much trade, as the cold weather generally retards building work. No large buildings outside the Tuberculosis Hospital will be started this fall, and probably winter work at the factories and yards will be light.

Prices for all wood goods remain firm, especially locally. While the stocks are large in some lines, taken as a whole they will not be as heavy as in 1913. Only a few mills are operating here and whether the balance of the mills will resume work this fall remains to be seen, but even if they do, the stocks of English deals will be only normal.

The American market seems to be getting worse instead of better, and the base price has receded from $23.50 to $23.00 Boston rate. This took effect September 12th, and is about as low as dimension has been sold for some years. It is not a question of price, but getting a buyer. This year, taken so far, has been very unprofitable for the American mills, doing business here. They will probably cease operations as soon as cold weather comes and not keep running all winter as they have done for some years past.

The cut of logs for St. John for next season will not be as heavy as usual. One concern expect to cut only about half as many as last year. What the other mills will do for woods operations has not been decided; but it is expected that in the next two weeks they will decide upon what basis to carry on their work.

Prices for English deals are good and it is said that last year's, or 1914 prices, are obtainable for next year's outputs, but, whether or not these prices can be obtained, the manufacturer here cannot sell for any less and come out of it with a profit, as logs are costing as much if not more than last season, and supplies are very much higher than last season.

Shingles are very dull and higher grades are impossible to sell, while only a fair demand exists for low grades of 2nd clears and extra number one's.

The lime business is about at a standstill.

The box trade is very slow and hardly any orders are coming into the factories. The fish catch on Grand Manan to date has been very small, the fish being of a very small size, going largely into sardines.

Ottawa Trade News—Export Trade Quiet

Ottawa, Sept. 21 (Special to the Canada Lumberman): When J. R. Booth closed down his saw mill two weeks ago owing to lack of water in the Ottawa River, about 1,000 residents of Hull were thrown out of work. Last week the Hull City Council appointed a deputation to wait upon Mr. Booth to ask him to try and find some way to reopen the mill as most of the men thrown out of work are none too well provided for. Mr. Booth assured the deputation that everything possible would be done to have the mills running again at full time. The water situation however, has not improved lately and it looks as if other lumbermen in this district will have to curtail their operations as a result.

Since the outbreak of the war, the export trade has not been very brisk. It is now practically at a standstill owing to about 25 trans-Atlantic steamers engaged in the Canadian-British trade, being taken off by the Dominion government for use in transporting the Canadian contingent to England. Prior to the temporary cancellation of these steamers there was a little business in medium grades of red and white pine, with Great Britain.

There is not likely to be any change in prices for some time, consequent upon the lack of demand for lumber, which is hardly likely to increase while the war is on. Labor is very plentiful and good men can be hired for as low as $1 per day. Not a few men have offered to pay their far to the camps in order to get work.

The new mill, which has recently been built by R. & T. Ritchie, Aylmer, Que., will commence operations in a few days and will give employment to about 150 men. This mill was built to replace the one burned down several months ago.

The Shepard and Morse Lumber Company are replacing the engine, which broke down in their saw mill a few weeks ago, with a new 700 horse-power, Whillock compound steam engine. At present the mill is being run by an electric motor and a 200 h.p., steam auxiliary engine. The one which broke down was 350 h.p. Fraser and Company, of Aylmer, had a similar accident to the engine in their saw mill a few days ago. By this latest accident 200 men were thrown out of employment. Repairs are being made as rapidly as possible.

Some of the most generous givers to the Canadian patriotic fund and other patriotic objects have been leading lumbermen in Ottawa. Besides giving several thousands of dollars to help in equipping an automatic machine gun battery Mr. J. R. Booth and Sir Henry Egan have given liberally to the patriotic fund, the former giving $20,000 and the latter $10,000. Sir Henry Egan, head of the Hawkesbury Lumber Company is chairman of the Ottawa branch of the fund and Mr. Frank Hawkins, secretary of the Canadian Lumbermen's Association, is secretary.

John Manuel, who for many years was associated with the late Colonel Alan Gilmour, of The Gilmour Lumber Company, died in Ottawa a few days ago at the age of 84. He left an estate, said to be valued at $5,000,000 most of which was left him by the late Col. Gilmour. Mr. Manuel was a bachelor all his life and as he died without any nearer relative than a nephew, James Manuel, of Ottawa, his estate will have to pay 10 per cent. on all over $10,000. Had he left a closer relative he would have had to pay in succession duty 5 per cent. on all over $50,000. The bulk of the estate has, it is understood been left to his nephew.

Montreal Trade Still Quiet

Montreal, September 25 (Special to the Canada Lumberman): Conditions in the lumber trade remain much about the same. While business is slow, lumbermen are in many instances inclined to take a more hopeful view of the immediate future. The cancellation of building contracts at the commencement of the European trouble naturally caused a wave of pessimism, particularly as many firms not connected with the building business began to reduce operations. But that feeling is gradually passing away. Contractors are not busy, although lately some moderate sized contracts have been given out, and others are pending. The efforts of the Builders' Exchange to arrange for work on a lower cost basis have not made much progress, owing to opposition from within and without to a reduction in workmen's wages. There is a surplus of labor, but the Unions have intimated that they are not willing, at present, to co-operate if this involves smaller pay.

Export business is picking up. For a time there was a scarcity of tonnage, and also uncertainty as to sailing dates, but there has been an improvement in the former respect. The Government have taken a large number of vessels for transporting the troops from Valcartier, and a certain amount of room for ordinary cargo has been reserved. The practical closing of the Baltic has resulted in a brisker demand in Great Britain for Canadian red pine, and stocks on the other side are reported to be moving more freely.

The sulphite market continues to be very firm, although prices have not further materially advanced. Owing to shortage of coal and other commodities, and the lack of men, together with the general war conditions, Europe has been sending only about sixty per cent. of the normal supplies of pulp. Buying, too, is of a hand-to-mouth character. With stocks on hand, the output of domestic mills, and the importations, the market has been fairly well supplied.

News print keeps up in price, the demand being still excellent.

Several Montreal and Quebec lumbermen have been generous contributors to the Canadian National Patriotic Fund. These include G. A. Grier $5,000; G. A. Grier & Sons, Ltd., $1,000; E. H. Lemay, $1,000; Campbell-MacLaurin Lumber Company, $500. W. & J. Sharples, J. F. Burstall, and Dobell, Beckett and Company, of Quebec, also contributed $1,000 each.

North Shore Output Will Be Light

Thessalon, Ont., Sept. 17 (Special to the Canada Lumberman): There will be a considerable reduction in the output of logs along the north shore this season. Nearly all the firms on the shore will cut mostly down timber this season. There is no sale for lumber at the present time, on account of the war. The yards at the mills are filling up and no lumber is being shipped. Although the entire cut is sold in most cases, shipments are not being made. Men are very plentiful at the present time. Camps are filled up and wages are about 20 per cent. less than in former years. Camp supplies however, are more expensive.—Algoma.

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WE CARRY THE LARGEST AND BEST ASSORTMENT OF DRY SPRUCE IN CANADA

Liverpool and Manchester Stocks

H. W. Lightburne & Company, Liverpool, Eng., and John E. Moore & Company, Limited, St. John, N.B., report as follows regarding Liverpool and Manchester stocks on September 1st:—

Spruce and Birch
Month Ending August 31st, 1914.

Liverpool

	Import			Consumption			Stock		
	1912.	1913.	1914.	1912.	1913.	1914.	1912.	1913.	1914.
N.B. & N.S. Spruce & Pine, Stds. ..	2,860	4,400	1,370	2,710	3,790	2,760	9,740	9,800	6,650
Birch Logs, Loads	240	40	0	580	20	100	1,280	580	500
Birch Planks, Stds.	164	55	61	206	115	164	782	740	334
Manchester									
Spruce, Stds.	11,660	18,040	4,640	5,340	5,640	4,230	17,580	21,820	14,100
Birch Logs, Loads	360	20	0	660	200	100	600	340	880
Birch Planks, Stds.	200	200	18	48	61	97	746	564	521

Stocks in Manchester and Liverpool Combined

	1910.	1911.	1912.	1913.	1914.	
Spruce						
Manchester	14,220	19,040	17,580	21,820	14,100	
Liverpool	7,320	10,280	9,740	9,800	6,650	
	21,540	29,320	27,320	31,620	20,750	Stds.
Birch Logs						
Manchester	80	440	600	340	880	
Liverpool	300	1,000	1,280	580	500	
	380	1,440	1,880	920	1,380	Loads
Birch Planks						
Manchester	836	224	746	564	521	
Liverpool	339	461	782	740	334	
	1,175	685	1,528	1,304	855	Stds.

Spruce Firmly Held at Liverpool

Farnworth & Jardine in their monthly wood circular under date of Liverpool, September 1st, report in part as follows:—

Business during the past month was naturally erratic, but in volume fairly satisfactory. Stocks, with few exceptions, are moderate, and values generally are increased. Of spruce deals the stock, with the cessation of Baltic whites, will all be required, and prices have strongly advanced.

Canadian woods.—Pine timber.—Arrivals came forward more freely, chiefly on contract, but there is no improvement in the demand to report; stocks are sufficient; values unchanged. Waney pine.—First class: The arrivals have been on a larger scale, for merchants' account, and landed entirely at Manchester; the deliveries have been fair, but stocks for present requirements are ample; values steady. Second class: There is only a very limited enquiry. Red pine is seldom enquired for. Oak.—Moderate imports, which are going direct into consumption; the demand continues slow, but stocks are not heavy, and values firm. Elm.—Arrivals amount to about 7,000 cubic feet to Manchester; the deliveries have been fairly satisfactory, but stocks are adequate; values rule high. Pine deals.—Imports have been on the moderate side, but the demand is slow, and the deliveries disappointing; stocks, though ample, are not too large under present conditions, and values are firmer. Red pine deals.—Small import; there has been more enquiry, and prices have advanced; stocks are light.

New Brunswick and Nova Scotia Deals.—The import to the Mersey (including Manchester) during the past month amounted to 6,010 stds., which is light, especially compared with the very heavy import of 22,440 stds. during the corresponding month last year; the demand locally has been active, and the consumption slightly exceeded the arrivals; stocks are now in a much more moderate compass, and firmly held. Owing to the war, there has been a strong advance in values, but there has also been an advance in freight rates of 20 per cent. to 25 per cent.; however, tonnage is offering freely, and rates are again easier. Pine deals are in fair request; stocks are light, and prices steady.

Birch.—Logs.—There have been no arrivals; the demand is quiet, and the deliveries only fair, but stocks are moderate; values firm. Planks.—Imports have been on a moderate scale; there has been rather more enquiry, and deliveries have been fairly satisfactory; stocks are not excessive; prices are firm.

British Columbia and Oregon Pine.—Arrivals amount to about 17,000 cubic feet on contract, which has largely gone into consumption; the demand is only limited, and stocks are heavy.

Liverpool Softwood Prices Advance

Alfred Dobell & Company, Liverpool, Eng., under date of September 1st, report as follows: The general dislocation of business early in August has gradually given place to more settled conditions than could have been anticipated. Arrivals during the past month have been swollen by several shipments diverted from the Continent. Owing to the stoppage of supplies from the North of Europe and to increased freights, values of softwoods have materially advanced. One or two articles have been in good request mainly for government purposes, but the general demand has been inactive, and shippers should exercise caution, and refrain from sending consignments forward indiscriminately.

Canadian woods—Waney board and square pine—The import of waney to Manchester was on contract. Stocks are more than ample for present requirements. Oak—The arrivals were light and demand steady. Stock within reasonable compass. Rock Elm—The consumption practically absorbed the light import. Birch—Logs were in moderate request at unchanged quotations. Planks—The limited import met a good consumption. Values firmer. Pine deals and boards—There was only a quiet demand. Stocks are more than ample. Values firm. New Brunswick and Nova Scotia spruce deals—To the Mersey and Manchester the main feature in this month's return is the drop in import to the extent of 16,430 standards. The consumption under the circumstances is quite fair, showing a reduction of only 2,440 standards. The combined stocks total 10,870 standards less than at this time last year, all of which and more will be required in view of the situation in the Baltic. The price has shown a very material advance; whether this advance will not continue remains to be seen.

Trade Conditions at London Becoming More Normal

Churchill & Sim, London, Eng., in their monthly wood circular under date of September 3, report as follows:

The deliveries in London for August amounted to some 23,000 standards against 44,000 standards for August, 1913. The partial cessation of shipments from the North of Europe more than accounts for this great reduction, some 23,000 standards less being delivered overside in comparison to last year's total. The market for practically all sizes and qualities of deals and battens in red wood and white wood showed a sensational rise in values, partly owing to fears of the supply being practically cut off, and partly owing to a run upon the stock available in the country to meet the sudden heavy demands of the government and their contractors. As the month progressed, business began to revert to more normal conditions, the action of the authorities preventing an undue rise in the value of money, and, as the situation cleared, enabling buyers to charter, although at increased rates, for their White Sea and Swedish purchases. There is little doubt that the general importation from the North must be curtailed, and that the special demands must be heavy for some considerable time, but shippers and merchants alike need not be reminded that, apart from this, there is a natural and very widespread disinclination to spend money, and that this fact reflects quickly upon the building and contracting trade. There has been practically no business concluded ahead, buyers being too busy in trying to solve the numberless questions raised through the country being in a state of war, but towards the end of the month some enquiry for Swedish shipments is evidence of a shortage in the stocks. Freights have risen considerably, and several charters have been concluded on the terms demanded by shipowners.

The stock of timber, deals, etc., at the public docks on tht 31st of August included:

	1914.	1913.	1912.	1911.
Colonial Pine Deals and Battens in Pieces.	479,000	484,000	419,000	439,000
Red Pine, in pieces	35,000	16,000	24,000	41,000
Spruce ditto, in pieces	514,000	490,000	536,000	502,000
Oak Timber, in loads	.....	.....	.....	32
Oak Planks, etc. (American) in loads..	3,975	1,915	1,338	1,884
Birch Timber, in loads	289	310	261	386
Birch Planks, in loads	3,585	4,100	2,106	3,004
Elm Timber, in loads	2,009	969	47	786
Ash Timber, in loads	48	2	.....	11
Yellow Pine Timber, in loads	634	1,082	167	250

From the St. Lawrence the importation has been:—
Pine deals, 152,000 pieces against 278,000 pieces in 1913.
Spruce deals, 172,000 pieces against 347,000 pieces in 1913.
Birch planks, 63,000 pieces against 220,000 pieces in 1913.
and from New Brunswick, etc.—
Pine deals, 3,000 pieces against 15,000 pieces in 1913.
Spruce deals, 139,000 pieces against 323,000 pieces in 19133.
Birch planks, 338,000 pieces against 287,000 pieies in 1913.

Supply has been small, but there is no improvement in the demand for pine deals. The price of spruce cargoes has risen very quickly and some considerable business has been arranged both from Quebec and from the lower ports to ports in the United Kingdom. The Canadian and American shippers are greatly helped by the partial cessation of supply from the North of Europe, and by the heavy demands made upon the existing stock in this country.

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Lumber and Timber	1,000,000 feet	Fir Doors	2,000
Shingles	900,000	Three Ply Fir Veneer Panels	30,000 sq. feet

Perfect Douglas Fir Doors

Our Doors are sold by progressive Dealers from Pacific to Atlantic being made from the choicest selected stock produced by our big mill and manufactured by the most improved method in

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Write for prices F O B your station in straight cars or part cars with Circle F.

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Canadian Western Lumber Co.

Limited

Fraser Mills, B. C.

Barbados Market Report

S. P. Musson, Son & Company, Barbados, report under date of September 20th as follows:—Lumberstuffs.—White pine—There have been no arrivals during the fortnight, and we think there will be an opening for a cargo or two a little later on. Spruce—Market is getting bare, and a couple of cargoes would sell to good advantage. Pitch pine—No receipts but market is well stocked. Shingles—The Schr. "Adriatic" arrived on the 18th instant from Bonaventure, with 1,672,000 extra No. 1's, which have been sold at $2.50. Other cargoes are on the way, and the market is heavily stocked both with this description and Long Gaspe. Shooks—Receipts consist of 21,000 bdls. Portland packs by the "Lydia M. Deering," all of which had been previously contracted for.

St. John Exports During August

The shipments of lumber from St. John to transatlantic ports, although small, were actually greater during August, 1914, than in August, 1913. The shipment of spruce deals amounted to 7,544,545 superficial feet, compared with 5,089,129 superficial feet in August, 1913, and of birch plank 404,335, compared with 60,553 feet. Taking the whole year, from January 1 to August 31, this year's shipments are only a little more than 8,000,000 superficial feet less than for the corresponding period in 1913. For the eight months' period the shipments of spruce deals are as follows, with comparisons:

	1913.	1914.
W. Malcolm McKay ...	28,639,687 Sup. Ft.	28,718,830 Sup Ft.
J. E. Moore & Co., Ltd.	14,993,070 Sup. Ft.	9,837,055 Sup. Ft.
George McKean	12,228,073 Sup. Ft.	11,109,585 Sup. Ft.
Other shippers	6,569,173 Sup. Ft.	4,030,176 Sup. Ft.

The total quantity of birch planks exported during the eight months' period in 1913 amounted to 4,487,468 superficial feet, compared with 5,771,368 superficial feet in 1914. The shipments of birch timber during the two periods were comparativtly 1,589 tons and 1,411 tons.

General Trade Improvement Reported by R. G. Dun

Dun's Review reports that despatches from the branch offices of R. G. Dun and Company in leading trade centres of Canada are more encouraging and indicate a general trend towards improving conditions. Montreal reports that retail trade is rather quiet, but that distribution at wholesale is in fair volume. There is a fair movement of staple commodities at Quebec and the outlook appears to be favorable. There seems to be a revival of confidence at Toronto with some increase in business in a number of lines. Both the wholesale and retail trades are quiet at Hamilton, and manufacturing concerns are working at reduced capacity. In the far west and northwest, business is becoming steadily more active as a result of the good crops and the high prices at which they are selling. Winnipeg reports state that retail business is in fair volume, but wholesale lines especially in hardware and lumber are hardly so favorable, although the outlook as a whole is regarded as promising. Calgary reports that business in the small towns is responding to the splendid prospects in store for farmers and this is stimulating the wholesale demand in the city. General business is rather quiet at Vancouver, but the feeling prevails that conditions are satisfactory, taking all lines into consideration.

Export Market Assisting B.C. Loggers

A despatch from British Columbia states that the recent order-in-council of the lieutenant-governor raising the embargo against exporting British Columbia timber has already had the effect of stimulating lumbering. The Coast office of the government timber department is being besieged with applications to export timber cut on Crown lands, and the scaling department is kept busy regarding the timber to come within the schedule of rates imposed by the order-in-council. The raising of the embargo not only is bringing in funds to the loggers, but is also providing funds for the government. Among the concerns to profit largely by the removal of the embargo is the Ocean Falls Company, now in liquidation. At the time of the assignment to Mr. Archer Martin, about 40,000,000 feet of timber were in the company's booms. Some of this has been sold to Skeena River mills and some to the Powell River Lumber Company. All that is left is now being built into huge crib booms and is being towed down to Anacortes, where it is finding a ready and profitable market.

It is estimated that the amount of lumber at present lying in Coastal waters of British Columbia, in log form is about 200,000,000 feet and that British Columbia mills own about 75,000,000 feet of this, the remainder 125,000,000 feet belonging to loggers. It is stated that there is a good demand in Washington and Oregon for logs. The prices at Puget Sound advanced $2 per thousand recently.

Opportunity for Wood Pulp Trade

The sudden cessation, as a result of the war, of German exports of sulphite pulp to the United States has had the effect of diverting to Canada many contracts relating to the supply of paper, says The Monetary Times. The Dominion is capable of producing unlimited supplies of wood pulp, and owners of timber rights of a suitable character, no less than actual manufacturers of pulp in Canada, are receiving a large number of valuable orders from the United States, the volume of which seems likely to increase. The production of wood sulphite, says the London Financial Times, has during recent years been a precarious industry; that is to say, the profits have been small and the risks great. Germany, however, with that ability for adaptation to commercial conditions which is so important a factor in her industrial success all over the world, has contrived to obtain a virtual monopoly of the wood sulphite business, and apparently has made money out of it. Fortunately, Canada now has a chance of securing practically the whole of the trade. It is no betrayal of business secrets to state that paper manufacturers all over the world are searching for supplies of raw material now that the German market has been closed, and are paying whatever prices are asked in order to fulfil their contracts. If the Canadian interests are wise they will not exact exorbitant terms, but will stand out for contracts covering a period of years on a fair level of prices.

The Increasing Demand for Newsprint

The situation in connection with the market for newsprint paper was outlined recently by the Boston News Bureau as follows:—"There is no question that higher newsprint prices are in sight in the United States. Fortunately for the publishers there are no expiring contracts of any size until late fall, and the most of the contracts do not come up for renewal until late December or the first of January. There is already talk in the newsprint industry of renewal prices higher than 2¼ cents per pound. But as no contracts have been made or are likely to be made for some months, this is purely academic. At the same time the war is building up a considerable foreign demand for American newsprint, and what is even more important it is taking much of the Canadian surplus with the possibility that Canadian supplies, which now furnish about 20 per cent. of the newsprint used in this country, may in time largely go to other countries. In that event American mills will have to enlarge their production to supply the demand. With newsprint four cents a pound in England, it is only natural that Canada should be rushing its product to that centre."

Pacific Coast Trade will Benefit

The Timber Trades Journal of London, England, in its issue of September 12th, in its Liverpool correspondence says:—"There is no doubt that the present position will give a fillip to the development of the Pacific Coast lumber business, but this will apply to the future, and any imports from British Columbia and California can have little effect upon the present import season. Great preparations are being made by those engaged in the lumber trade on the Pacific Coast with a view to the development of traffic via Panama. There is a very large demand on the Eastern seaboard, and the high transport charges have hitherto prevented that expansion, for which the enormous resources of the West are more than adequate. In fact, a few months ago there were many inquiries for tonnage to take shipments from British Columbia to the St. Lawrence, and since then it is known that good progress has been made. Exporters in Western Canada are also making arrangements for the transport of timber in large quantities to New Zealand and Australia, but it is by way of Panama that the greatest activity is likely."

A Splendid Advertising Letter

One of the most practical and subtle advertising pamphlets which have recently come to our attention is one which has been issued by the Graton & Knight Manufacturing Company, oak leather tanners and belt makers, Worcester, Mass., who have sent out a very attractive four-page illustrated letter in pamphlet form, directed to everyone who is upon their mailing list. The letter is designed in a very attractive manner, and, in keeping with the harvest season, is suggestive of the good fellowship and good cheer which so frequently prevail at this time of year. The color scheme of the pamphlet is a soft yellowish brown upon a straw colored background and it is illustrated with attractive pictures of harvest scenes and village events. The whole conception of the pamphlet is such as to create in the recipient pleasant memories of boyhood or vacation days, and the subtle feature of the whole scheme is the fact that, in this way, the Graton & Knight Company "get under the skin" of their trade friends in such a manner that they will not be readily forgotten.

CAMP SUPPLIES

We have a splendid stock of Prunes, Dried Peaches, Apricots, Apples, Raisins, Currants. In fact everything in the eating line suitable for the Camp, and we would appreciate a line from you asking for our prices which we can assure you are as low as the present condition of supplies will warrant, and very much lower than we could offer if we were compelled to go into the market and buy today.

H. P. ECKARDT & CO. Wholesale Grocers

Church St. & Esplanade, Toronto

Jenckes Boilers

Horizontal Tubular Boiler
Locomotive Type Boilers
Vertical Boilers
Heating Boilers
Penstocks
Smokestacks
Steel Tanks
Plate Work

All Sizes, To Any Provincial Act. Write for quotations.

The Jenckes Machine Co.
Limited

Sherbrooke, Montreal, St. Catharines, Toronto, Cobalt, South Porcupine, Vancouver, Nelson
Works: Sherbrooke, Que., St. Catharines, Ont.

Sanitary Logging Camps Always Pay

Comfortable Quarters and Good Food Make the Men Satisfied and Bring Dividends to the Company

By C. W. Buckner*

The topic of "sanitary logging camps" is one that, I must say, deserves a great deal of careful study and thought. I know the opposition that a discussion along this line always stirs up. You all remember some of our past discussions regarding Y. M. C. A. work in our logging camps, and at every turn in the discussion we meet that conspicuous interrogation mark which, in that case, means without further investigation, "Does it pay in dollars and cents?" And I believe most of our larger logging operators have come to the conclusion that we may now safely change that sentence to read, "It does pay to have Y. M. C. A. work in our logging camps."

I am thoroughly convinced that every dollar we invest in making our camps more sanitary and comfortable for our men will more than show its share of dividend.

If we decide to buy a new donkey engine, locomotive, or flying machine, just see how much time we take to decide the best type of machine to buy, and if convinced that one particular make will stay with us longer than some other, see how quick we are to select that make, and also how readily we part with a few extra hundred dollars to get the machine that will stay with us longest. How much more important it is for us to select men who will stay on the job as long as possible. When we get a good piece of machinery we are always anxious to improve working conditions so that the repairs will be as light as possible. Why not look around and see if there is not some place about our camp where we can make it more sanitary, and thereby lighten the repairs and prolong the usefulness of our human machines.

We assemble here once each year to try to help each other out on the vexing problems that confront us from time to time, and spend about seventy per cent. of the time considering electric logging, flying machines, oil burners, large firebox donkeys, gasoline donkeys, cable systems, and various other mechanical appliances, then go home and pay out about thirty per cent. of our cost of logging in machinery, depreciation, etc., and the other seventy per cent. in wages to the men to whom we have given about thirty per cent. of our time while assembled here.

Mr. Donovan, our president, last year gave us a glimpse of an ideal logging camp. How many of us went home and said, that it is easy for Mr. Donovan, he has a large camp, and expects to be in his present location for years to come and he can well afford to spend the money, but how can we small operators be expected to give our men the conveniences that he has.

Now I am speaking to you from the standpoint of the small operator. I dare say I have charge of as small a camp as anyone present, and I want to tell you that every dollar I have spent for the convenience and better treatment and feeding of our men has shown its share of dividend to the company I represent. A little later I am going to tell you about our small camp.

What comes to my mind just now is the second paper read by our friend Mr. O'Hearne last year, and the lurid description of the logger as discovered by Mr. Cornwall in 1909, and I am afraid that some of us still entertain the same idea of the logger to-day. I am not going to confine myself alone to the recommendation of a bathtub and electric lights for our men, but also to the good wholesome food properly cooked and put on the table so that it looks celan, and such as we should not be ashamed to give to any of our friends here should they happen to be in our camp at meal time; something to read, some technical papers, The Timberman, and a few copies of the proceedings of the Pacific Logging Congress. (I bought about twenty extra copies containing the report of last year's proceedings, and most of them went to my men.)

I am going to tell you some of my experiences in the logging camps in the yellow pine belt, south of the Mason & Dixon line. Several years ago I was offered a position as superintendent of a logging operation which employed two to three hundred men, and almost half as many Missouri mules. These mules were our electric motors, gasoline donkeys, flying machines, etc. I went over to spend a day or so looking the proposition over, and the first night there I saw two fights; ine one of them a Barlow knife of fair dimension was used with good effect. There were at least a dozen drunken men. Now I had known more or less of Missouri camp life ever since I had been large enough to earn twenty-five cents a day as water boy, but it seemed to me that this was going it rather strong, so I asked my host why so many men were drunk, and where they got their liquor (as this was in a dry county). He replied "Oh! this is nothing unusual they have nothing else to do when their day's work is over and as there are too many of them to stay in the sitting rooms at the boarding houses, they go over to the blind tiger (there were two within quarter of a mile of camp) and get full." Now in this western country we have no blind tigers we call them blind pigs instead. I suppose the difference in the disposition of the two animals is represented in the difference between the class of Scotch and rye whiskey disposed of by our blind pigs, and the real White Moonshine corn whiskey doled out by our blind tigers down there. However, the superintendent told me it was impossible to better conditions as the men would get drunk and break up the furniture in a boarding house, and that it was out of the question to get men to stay any length of time.

After taking charge of this operation, the first thing I did was to make more room for the men, and make them more comfortable, and then get rid of our pets the tigers. Men called me a crank, a preacher, an idealist, in fact everything but a sane business man, but I soon got around me a crew of sober, hardworking men, men who stayed on our pay roll year in and year out, men many of them with families, men on whom I could depend to go and get out the four million feet each month that we required, men, many of whom stayed with me for the four years I remained there, and would no doubt have stayed longer if we had not cut all the timber in the county, and been compelled to break up the camp. Did it pay in dollars and cents? I only wish I could now make as much out of our logging operations as we made there out of our commissary department alone.

Now getting back to our own problems on the Pacific Coast. About three and a half years ago I was engaged as superintendent at the lumber camp by the company I am now with. I was put in charge of the logging, the sawmill, and in fact manager of the lumber end of the business (the firm's main business is building contracting).

When I went there I found the bunk house very untidy to say the least, and divided off into four large rooms. These were to accommodate about twenty-four to thirty men, the only lights, a few small oil lamps with number one burners. If the men wanted a bath they could go and sneak a fire bucket or walk two miles to the river. The beds were thin excelsior mattresses thrown on rough bunks without any springs; we had a Chinese cook and not a good one at that; I was taking my meals at the cook-house myself and if some of you had come in I should have hesitated about asking you to eat with me.

I got a carpenter busy and divided the large rooms into small ones, part of them accommodating two men and some of them only one. I purchased a supply of combination box mattresses and springs, put two large neat tables in the lounging room, and put some magazines, a few lumber journals and a daily paper on these tables. I installed electric light in each room, a good strong one or two in the lounging room, and later I put in a bathtub, piped the cold water into it, and then ran a small steam pipe into it so they could heat their cold water with a little steam and have a decent bath. I afterwards planted out a small flower garden, and I believe these rough loggers enjoy the bouquet of flowers that are most of the time on our dining table as much as you and I enjoy them on our dining tables in our private homes. After firing about half a dozen Chinese cooks in about as many weeks I hired a white cook and paid him a decent wage and told him to feed my men. He is with me yet and I believe we have a pretty fair reputation as far as our boarding house is concerned.

A good many of my men have been with me veer since I took charge. They are satisfied and are doing me good honest work. This year, on account of the poor lumber market, we found it necessary to cut down wages. I told them the circumstances, and very few left me.

When we were starting our camp this spring, our woods-foreman was in a small town nearby, and several loggers from a nearby camp asked him for work. He called me up over the 'phone and told me about it, and told me what wages they had been getting. These were higher than we were expecting to pay, and I told him we could not meet these wages, and when he told them they replied that they wanted something to eat, cooked by a white man, and a decent place to sleep in. Five of them came at twenty-five to fifty cents less per day than they were getting before.

Now do not think we have never had a dissatisfied man. We have. We have had quitters, plenty of them, and we will always have them, even if we fed them in the Hall of the Doges at the Davenport in Spokane. Some men are born kickers, and will continue to kick all through life, and I sometimes wonder if the two by two and a half by six foot box will stop their kicking, or if they will still be dissatis-

* Of the Westholme Lumber Co., Westholme, B. C. Address delivered at Pacific Cos Logging Congress.

YOU CAN INCREASE YOUR PROFITS

BY HANDLING OUR

E. G. FIR FLOORING FIR FINISH FIR MOULDINGS

E. H. HEAPS & CO., LIMITED

VANCOUVER, B.C.

Mills at Ruskin and Vancouver, B. C. | HEAD OFFICE: 445 Hastings St. West, Vancouver, B. C.

Forest Service Reports

Show that in Rocky Mountain Forests 100 years old the trees average 6 to 16 inches in diameter.

In Pacific Coast Forests of the same age the trees average 12 to 24 inches in diameter.

You cannot afford to plant a forest in either section.

You can afford to ***buy one.***

We have a number of excellent tracts that should interest the investor and operator.

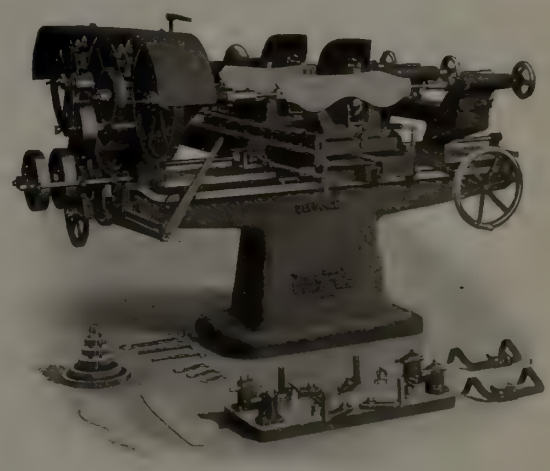
James D. Lacey & Company

Timber Land Factors

Chicago, Ill., 1750 McCormick Building
Portland, Ore., 1313 Northwestern Bank Bldg.
Seattle, Wash., 1009 White Building

A Double Copying Lathe

This machine is intended for turning irregular shaped articles, such as hatchet or axe handles, frames, saddle bars, golf stick heads, gun stocks, lugged spokes, etc. It will turn of the smallest size up to 7″ diameter by 38″ long and will produce two prices exactly duplicate or one right and one left hand article at the same time. The machine has five changes of feed varying from 1/8″ to 3/8″ and the cutter heads are fitted with six right and six left handknives so the machine can be fed both ways. For further parulars and prices write to



No. 303 Automatic Double Copying Lathe

The Defiance Machine Works

Defiance, Ohio, U. S. A.

PRATT & WHITNEY CO.

OF CANADA, LIMITED

SMALL TOOLS

Taps — Dies — Reamers — Cutters — Drills

MADE IN CANADA

As good as money can buy—Guaranteed absolutely!

Head Office and Works, DUNDAS, ONT.

SALES OEFICES:

MONTREAL Drummond Bldg. VANCOUVER WINNIPEG Bank of Hamilton Bldg.

→ KNIVES ←

Good Steel Carefully Manufactured
Properly Tempered

Ask for Catalogue and Quotations

Galt Knife Company, Limited

GALT - ONTARIO

fied when they have reached that better world, which we all hope to find.

One of our ironclad rules is that when a man comes into our camp drunk we have no further use for that man on our pay roll. If one of them must get on a spree and takes a few days off, and gives us a chance to fill his place temporarily while he goes to town to spend his money and make a hog of himself, that is his business, not ours; but when he comes into our camp and disturbs our men who are trying to be comfortable after a hard day's work, then it is our business and we immediately get busy.

Now we are not trying to run a pink tea camp—far from it; but we are trying to have our camp sanitary, trying to keep our bunkhouse a clean and comfortable place for our men to rest in at night with plenty of light, plenty of ventilation, plenty of clean water, and last but not least, a supply of good wholesome food cooked in a sanitary manner and served up on the table so that it looks clean and appetizing when our men come to the dining room.

I am convinced that the few dollars we spend in this way bring us good returns, and I expect to follow up this policy as long as I stay there to look after the interests of the company that now pays me my salary.

Getting the Most Out of Your Saws

How long should a saw be operated before repeat sharpening, is a very important subject, especially so if a bandsaw is the one in question.

The habit of operating a band saw as long as it will stand up to its work and cut straight is a bad one. It is much better to have regular changing time allowing such periods to be governed by the kind of timber being cut. Of course the condition of the logs enters largely into this. The less grit the better the condition of saw and better results as to output will be obtained in a given period. To illustrate, a large mill in N. C. had all their logs hauled to mill by carry logs, which drag the logs on the ground between two wheels. It was found necessary to change saws so frequently that the mill was forced at times to wait for sharp saws because the filers could not keep up with the demands. Finally the management installed a washing arrangement, a system of sprays under pressure struck the logs as they were hauled into the mill by the log jack and the benefit was all that could be desired. The saws stayed in running condition for a reasonable time and the desired output was obtained at small cost and everybody concerned was happy, especially the filer.

The advantages of changing saws at regular periods are many. In the first place it establishes a system, which is of great benefit in all businesses, and helps to keep the cut at a standard; in other words if the changes are made quarterly, the amount produced each two and a half hours will be pretty nearly alike providing the logs average about the same. The sawyer will exert himself to the utmost to keep up to the standard he has established and will increase it if he can and will hunt up the tallyman at the end of the day and ascertain if he has gone behind or gained.

Another advantage of changing saws at stated periods is to relieve the saw of too constant and undue strain. There is no doubt that the cause of many saws having failed on account of cracks or losing tension is either too long service per trick, or running when dull, or continuing a saw on the wheels after a bad dodge in cut. The latter is a most prolific cause of cracks. The dodge in many instances will pull tension or dish or both. The saw should be removed, and examined and corrected, which will not only increase the life of the saw, decrease expense and make life easier for all concerned, especially the filer and sawyer, but the owners will benefit by increased output, better lumber and better frame of mind at the end of each day. In other words the mill will run smoothly and an average output with few miscuts will be the result.

Don't work a willing horse to death, is an old saying that can be applied to a band saw. Treat the horse right and he will do a good day's work and after a good feed and rest will be ready for the next day. Although the saw is inanimate, it must be treated as though alive. Keep up its condition, do not overwork it, and it will respond to the lever, the same as the horse responds to the reins. If forced too hard either will fail or nullify. The horse will strain himself or balk, and the saw will dodge and the sawyer will cuss. And the filer will in many instances become disgusted and hunt a smoother job. Don't expect too much. Learn the limit of each saw and don't drive beyond it. Many mills force their saws entirely too hard and suffer in quality and quantity of output, and will find if they will investigate that their neighbor whose mill is of the same capacity and who is conservative, manufactures more and better lumber, subjects neither saw nor machinery to excessive strain while doing it. There is nothing in the slap dash method. It may look to the casual observer, and to the owners as though they are making more by such methods but my own experience and observation in numerous mills have proved that the men who keep their saws well sharpened and tensioned invariably get the best results from every point of view.—George McClellan in the Disston Crucible.

Unique Mechanical Draft in a Lumber Mill

The Bloedel-Donovan Company of Bellingham, Washington, have recently installed a unique and successful induced draft apparatus. The magnitude of the installation can only be appreciated by comparing it with the horse and wagon standing beside it as shown in the accompanying illustration. The wagon is only about half the height of the fan, while the collector is larger than an ordinary house. This apparatus is guaranteed by the Sturtevant Company to collect all sparks and cinders, thus eliminating the fire risk. Cinders are caught in the collector and are diverted into a flume of water which empties into Puget Sound. The equipment also enables the owners to keep clean lumber in their yards, and they state that it will save them thousands of dollars a year for that reason. Cinders settling on lumber together with rain, discolor the wood and greatly reduce its market value.

This apparatus is used in connection with boilers burning shavings and sawmill refuse. At the time the photograph was taken the boilers were delivering 2,300 h.p. which is greatly in excess of their normal rating. This increase in boiler capacity is due to the tremendous additional draft obtainable with the induced draft system.

Unique Induced Draft Installation.

In some plants as much as 100 per cent. additional capacity is obtained by using mechanical draft. Another advantage is that steam pressure is kept constant at any desired pressure. When steam pressure tends to decrease the fan speeds up automatically and does not allow pressure to drop. This enables the plant to respond instantly to sudden demands for more steam. If another engine were thrown in there would be plenty of steam. With this system steam can be raised from cold water very quickly.

The intsallation was made by the B. F. Sturtevant Company of Hyde Park, Boston, Mass.

The Canada Lumberman has been favored with a welcome calendar from John Bertram & Sons Company, Dundas, Ont. The calendar consists of a large pad with a sheet for each day of the year, from September, 1914, to December, 1915. It is mounted on a strong metal board bearing the company's name and trade mark.

Moving Pictures of Great Sawmill

The Canadian Western Lumber Company, of New Westminster, British Columbia, which operates one of the largest sawmills on the continent, has had moving picture films made of the various units of the plant, which has a capacity of 400,000 feet of lumber and 1,000,000 shingles daily, and an auxiliary door factory, with a capacity of 1,000 doors a day. The films, which reproduce realistic views of the various units of the great plant, including the logging and cutting of huge trees into lumber and shingles, will be placed on the regular circuits for the movies in Canada, the United States, and Europe, giving to the lumber industry in this Province a wide range of advertising and directing the attention of people all over the world to the great natural resources of British Columbia.

An Open Letter

To the Canadian Lumberman:

Dear Sirs,—

For the past twenty years we have been catering to the wants of the Lumbermen of Canada and we believe that from this long experience that we are in a position to know your requirements. We have studied your methods of doing business, have studied your requirements, and we have made every effort in that length of time to manufacture for you such goods as we could positively guarantee would give you satisfaction. In this connection we might say, that at no time have we ever scimped a garment in order to get a larger margin of profit. We believe we have given you the best make, and for the reason stated above, that we have studied your wants and requirements very closely, and we wish to assure you this year that we are in a position to still cater to your requirements as in the past. The European War has not, nor will not, make any difference in our ability to take care of your requirements.

We are carrying a stock of approximately $500,000 worth of made-up Garments and Raw Material such as you will require for the coming Winter, consisting of, BLACK and FANCY MACKINAWS, HEAVY TWEED PANTS, OVERALLS, HEAVY TOP SHIRTS, PURE WOOL SOCKS, CAPS, HEAVY WINTER UNDERWEAR and a very large and extensive range of MEN'S SWEATERS.

We are in a position to ship your valued Orders the same day as received.

In conclusion, we beg to thank you for the very generous patronage which you have given us in the past and may we ask for a continuance of these favors during the coming year.

We remain,

Faithfully yours,

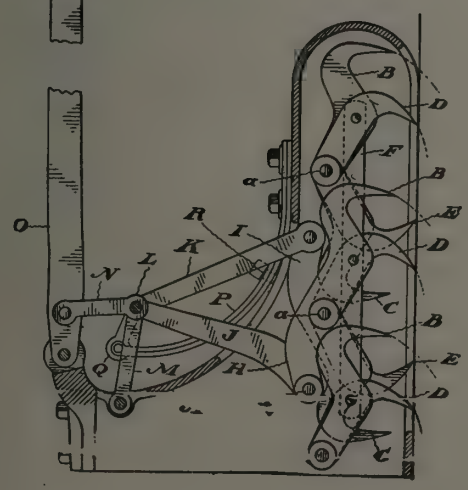
Winnipeg
Toronto

Smart-Woods LIMITED
CANADA

Ottawa
Montreal

A Boon to Lumbermen
Payette's Famous Patent Mill Dogs
650 Sets already sold

Fig. 1.



BECAUSE

(1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer. P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.

P. Payette & Company

Engineers and Machinists

Penetanguishene, Ontario

OPPORTUNITIES

WE own and offer for sale on attractive terms a few especially well selected tracts of timber running from 50 million to one billion feet that are ready for immediate operation, having a good local demand at high prices.

The timber on the Pacific Coast is the last stand of the great forests. Well selected timber in British Columbia is the best investment on this Continent and offers especially attractive inducements for manufacturers.

For further particulars, address

A. C. Frost Company

Corn Exchange Bldg.

CHICAGO

Everything in Spruce

Dressed and in the Rough

Campbell, MacLaurin Lumber Co.

Limited

Board of Trade Building, MONTREAL

I WANT YOUR ORDERS

and solicit your inquiries for

PINE, SPRUCE, HEMLOCK, HARDWOODS, LATH

Deal with me and you will be satisfied every time.

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

Eastern Townships Bank Building, MONTREAL, Quebec

EDGINGS

Ontario

The Geo. McLagan Furniture factory at Stratford, Ont., which has been closed for some time for the installation of new boilers has again commenced operation.

The Shepard & Morse Lumber Company, Ottawa, Ont., are replacing the engine in their plant which broke down a few weeks ago, with a new 700 h.p. Willock compound steam engine.

The Ontario Gazette of September 19th contained a notice that the provincial secretary had accepted the surrender of the charter of the Cavendish Lumber Company, Limited, and had directed that it be cancelled.

The ratepayers of Goderich, Ont., have passed a by-law guaranteeing bonds of $25,000 to J. E. Baechler, North Street, for the erection of a third floor addition to his new plant. The addition is to cost $50,000, and is to be used for a furniture factory.

The shingle mill belonging to J. H. Clark on the Magnetewan River, a little outside of Burks Falls, Ont., was recently destroyed by fire. The stock of shingles was saved. The loss amounted to about $2,000 and there was no insurance. It is stated, however, that Mr. Clark intends to rebuild.

The Cleveland Sarnia Saw Mills Company, Sarnia, Ont., report that the fire from which they suffered recently was confined to the lumber yard and the loss only amounted to $15,000. This was fully covered by insurance. The fire did not in any way interfere with their shipment of dry lumber or the operation of their sawmill.

The Abitibi Pulp and Paper Company are rapidly completing a development which will give good markets and employment to a large number of people. This company will have a probable output of 250 tons of newsprint per day. They are erecting houses for their workmen. They have laid out their town site and are putting in sewers and a water system. They have taken out much pulpwood, and when in full running order will require 90,000 cords for their paper mill.

The New Ontario Colonization Company, Jacksonboro, Ont., are pressing forward their development by the building of roads and the erection of houses, and are, in other ways, making preparations to promote settlement on a considerable scale. With the sale of pulp concessions, other developments may be expected in the near future, and as soon as the Transcontinental is running and reasonable freights obtained, outside buyers of pulpwood are expected to come in and widen out the market for settlers' timber. The Department of Lands, Forests and Mines is preparing the way for settlement by the construction of roads which will enable settlers to get to their lands without delay or hardship.

Eastern Canada

B. F. Smith, East Florenceville, N.B., whose sawmill was recently destroyed by fire reports that the mill will not be rebuilt this season.

The Louison Lumber Company, Limited, Jacquet River, N.B., whose plant was recently destroyed by fire, commenced work upon the construction of a new mill on September 25th.

The engine in the sawmill of Fraser & Company, Aylmer, P.Q., recently broke down and resulted in two hundred men being thrown out of employment. Repairs are being rapidly made.

The new mill built by R. & T. Ritchie at Aylmer, P.Q., is now completed and will shortly give employment to 150 men. This mill was built to replace the one which was destroyed by fire several months ago.

Timber lands in Shelbourne and Queens County, N.S., which were purchased about four years ago by a Yarmouth Syndicate have been sold to the Berkshire Lumber Company, Pittsfield, Mass. The lands amounted to 1,912 acres.

Petit & Petit, Limitee, have been incorporated with head office at Montreal and capital stock of $49,000 with powers to acquire timber, timber limits, etc., in addition to a large number of other general powers relating to the purchase and sale of real estate.

The province of Quebec, in its official Gazette announces that permits to cut timber will be offered at public auction at the Department of Lands and Forests, Quebec, on October 20th in the following districts:—Upper Ottawa, Lower Ottawa, Lake St. John East, Matapedia Valley, St. Laurent of Metapedia, Rimouski West, Gaspe West, Bonaventure West, Lake St. John West, Lake St. John North West, and Saugenay Agency.

Western Canada

The Lumber Insurance Company of New York has been registered in the Province of Saskatchewan under the act for the inspection of foreign companies.

The shingle mill of the Ardley Lumber & Shingle Company at Ardley,

B.C., was recently destroyed by fire causing a loss of $1,600 on the building and $3,100 on the machinery, which is largely covered by insurance.

The A. B. Cushing Lumber Company (Vancouver), Limited, has been incorporated with authorized capital of $200,000.

It is reported that a Vancouver firm is negotiating for the purchase of standing cedar and fir timber at Hope, B.C., and that it intends to erect a shingle mill.

A fire at Port Moody, B.C., recently destroyed about 1,500,000 feet of lumber belonging to the Canadian Pacific Lumber Company. The mill and dry kilns were not damaged.

The partnership between Aaron Serkan and Robert Smith, under the firm name of "The Lake Manitoba Trading and Lumber Company," with head office at Winnipeg, has been dissolved.

Thos. D. Robinson & Sons, Limited, 258 Portage Avenue, Winnipeg, Man., have secured the contract from the Winnipeg Board of Control for the supply of 1,500,000 to 2,000,000 feet B.M. of lumber.

The McLaren Lumber Company, Blairmore, Alta., who were recently making arrangements to erect a large mill at a cost of $200,000, report that they have decided to let the matter stand over until next year.

The Canyon City Saw Mills Company, Limited, have been incorporated in the province of Saskatchewan with head office at Regina and capital stock of $15,000. The headquarters of the company are at Creston, B.C.

The sash and door factory of the Sunset Sash & Door Company, 724 Broadway St. W., Vancouver, B.C., was recently destroyed by fire. The plant was located at the corner of Broadway and Heather Streets. The loss amounted to $8,000.

The Mankin Lumber & Pole Company, Fayetteville, West Virginia, has secured an extra-provincial license to carry on business in British Columbia, with provincial head office at Nelson. The capital stock of the company is $100,000. James O'Shea, Nelson, B.C., is attorney for the company.

Mr. J. S. Deschamps, who is equipping a new mill on the site of the old Yale-Columbia mill at Nelson, B.C., reported recently that the plant was nearing completion and should be in operation about the end of September. He intends to continue sawing operations until Christmas at least. The new mill will have a capacity of 40,000 feet per day, which can be raised to 50,000 feet by slight additions.

The Alberta North West Lumber Company, Limited, has secured an extra-provincial license to carry on business in the province of British Columbia, with provincial head office at 901 Vancouver Block, Vancouver. The headquarters of the company are at Ponoka, Alta. The company's capital stock amounts to $20,000. R. S. Lennie, Vancouver, is attorney for the company.

The Registrar of the Supreme Court of British Columbia is advertising that creditors of the Canadian Puget Sound Lumber Company, Limited, are required on or before October 10th, to send their names and addresses and the particulars of their claims, etc., to Rowland F. Taylor, Victoria, B.C., official liquiadtor for the company. On October 12th the debts and claims reported are to be adjudicated.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

814. **Lumber (spruce and white pine).**—A commission merchant in Havana would like to correspond with Canadian exporters of lumber (spruce and white pine). Good references offered.

854. **Red fir poles.**—An inquiry is made for the addresses of Canadian sawmills who can supply red fir poles suitable for telegraph and telephone posts.

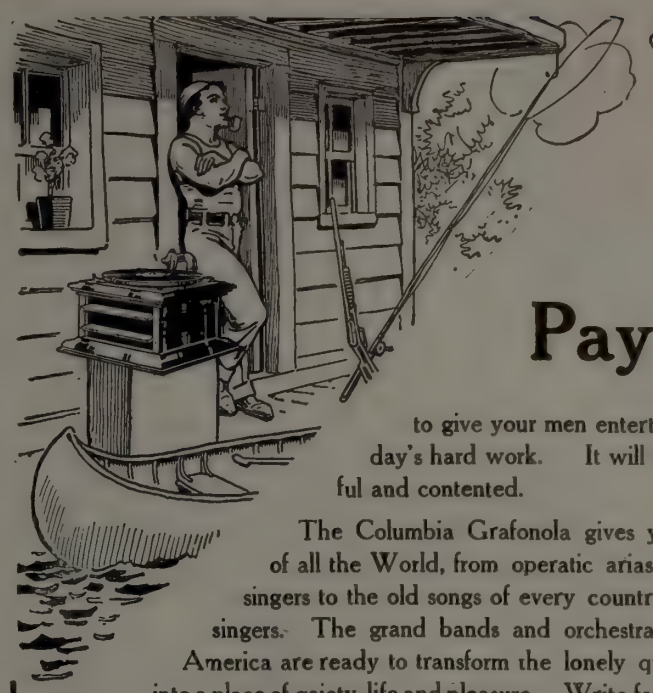
906. **Wood-pulp.**—In view of the possible shortage of paper in Scotland, inquiry is being made for large supplies of Canadian wood pulp, and requests are received for names of manufacturers able to make immediate shipments.

907. **Pit wood.**—Inquiry is made for names of Canadian manufacturers of pit wood.

908. **Pit timber.**—A colliery company in the north of England wishes to get offers of pit timber (c.i.f.) from Canadian shippers. Specifications at Department of Trade and Commerce, Ottawa.

912. **Aspen, poplar, etc.**—An important Swedish match manufacturing enterprise wishes to ascertain the possibility of obtaining from Canada supplies of aspen, poplar, and similar timber, more particularly for the production of match boxes.

Mr. Donald Campbell McLean, for many years a well-known lumberman of Toronto died recently at his home. Mr. McLean was seventy-nine years of age. He had continued an active life up to three weeks previous to his death. He was born in Alexandria, Ont., and moved at an early age to Manilla, Ont., and later to Cannington, Ont., conducting a carriage business at both of these places. After residing in Cannington for fifteen years, he moved to Toronto thitry years ago, and established a lumber business. He is survived by a wife, four daughters and five sons.



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Hoyt Metal Company
Canada Metal Company

BAND MILLS
Berlin Machine Works
Hamilton Company, William
Waterous Engine Works

BELT CEMENT
Graton & Knight Mfg. Company.

BELT DRESSING
Dixon Crucible Co., Joseph
Graton & Knight Mfg. Company.

BELTING
Canadian Fairbanks-Morse Company
Dominion Belting Company
Federal Engineering Company
Goodhue & Company, J. L.
Graton & Knight Mfg. Company
Gutta Percha & Rubber Co.
McLaren Belting Company, J. C.
Reddaway & Co., F. (Camel Hair)
Smith, Nathan

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Invincible Blow Pipe Company
Sheldons Limited
Sturtevant Company, B. F.
Toronto Blower Company

BOILERS
Inglis Company, John
Jenckes Machine Company
Leonard & Sons, E.

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Ontario Bond Corporation

BOX MACHINERY
Canadian Linderman Co.
Mereen-Johnson Machinery Co.
Morgan Machine Company

CALKS
Steel Company of Canada

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Clarke & Company, A. R.
Eckardt & Co., H. P.
Hall, Limited, Adam
Johnson, A. H.
Lamontagne, Limited
Morin & Company, Dr. Ed.
Palmer Medical Company
Smart-Woods Limited
Turner & Sons, J J.
Young, W. F.

CANOES
Dixon, F. M.

CANT HOOKS
Argall Bros.
Pink Company, Thomas

CEDAR
Canadian Western Lumber Company
Thurston-Flavelle Lumber Company

CHAINS
Argall Bros
Coghlin Company, B. J.
Laughlin Company, Thos.
McKinnon Chain Company
Morris Crane & Hoist Co., Herbert
Pink & Company, Thos.
Standard Chain Company

CRANES & DERRICKS
Morris Crane & Hoist Company

CUTTER HEADS
Shimer & Sons, Samuel J.

CYPRESS
Louisiana Red Cypress Company
Wilson Lumber Company
Wilson Lumber Company, Inc.
Wistar, Underhill & Nixon

DOORS
Batts Limited
Benson & Bray Limited
Canadian Western Lumber Co.
Haeberle Lumber Company
Heaps & Company
Rat Portage Lumber Company
Rimouski Lumber Company
Tessier, Alphonse

DOUGLAS FIR
Auger & Son
Canadian Western Lumber Company
Mason, Gordon & Company
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Carborundum Company

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Leonard & Sons, E.
Waterous Engine Company

EXHAUST FANS
Sheldons Limited

EXHAUST SYSTEMS
Reed & Co., Geo. W.
Sheldons Limited
Toronto Blower Company

FILES
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Nicholson File Company
Simonds Canada Saw Co.

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Caflisch Bros.
Fassett Lumber Company
Gillespie James
Harris Lumber Co., Frank H.
Heyser Lumber Company, W. E
Hocken Lumber Company
Hoffman Bros. Company
Newman, John P.
Partington Pulp & Paper Co., Ed.
Rat Portage Lumber Company
Rimouski Industrial Company
Snowball Company, J. B.
Spencer, C. A.
Stearns Salt & Lumber Company
Webster & Bro., James

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Canada Wood Specialty Company
Siemon Bros.
Wilson Bros.

HEMLOCK
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Bartram Bros.
Cameron & Company
Canada Lumber Sales Company
Diver, John M
Elgie & Jarvis Lumber Company
Fesserton Timber Company
Graves, Bigwood & Company
Haeberle Lumber Company
Hocken Lumber Company
McGibbon Lumber Company
Mason, Gordon & Company
Partington Pulp & Paper Co., E.
Quincy-Adams Lumber Company
Spears & Lauder
Spencer, C. A.
Snowball Company, J. B.
The Long Lumber Co.

HOISTS
Morris Crane & Hoist Company

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Union Stock Yards Company

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Gutta Percha & Rubber Company
Reddaway & Company, F.

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INTERIOR FINISH
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Galt Knife Works
Peter Hay Knife Company
Simonds Canada Saw Company

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Rogers & Company, Samuel C.

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Beck Mfg. Company, C.
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Fraser Limited
Fraser-Bryson Lumber Company
Georgian Bay Lumber Company
Harris Tie & Timber Company
Graves, Bigwood & Company
McGibbon Lumber Company
New Ontario Colonization Company
Partington Pulp & Paper Co., Ltd.
Rat Portage Lumber Company
River Ouelle Pulp & Paper Co.
Spencer, C. A.
Victoria Harbor Lumber Co.

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Adams Launch & Engine Company

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Climax Mfg. Company
Heisler Locomotive Works
Montreal Locomotive Works
Sessenwein Bros.

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Gerlach Company, Peter
Russell Brothers
Rutherford & Sons, Wm.
Ryther & Pringle Company

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Bathurst Lumber Company
Canada Wood Specialty Company
Canadian Western Lumber Company
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Fassett Lumber Company
Garrett Lumber Company, T. H.
Georgian Bay Lumber Company
Glengarry Lumber Company
Harris Lumber Co., Frank H.
Harris Tie & Timber Company
Laidlaw Lumber Company, R.
McLennan Lumber Company
Montreal Lumber Company
Newman, John P.
New Ontario Colonization Co.
Oliver Lumber Company
Parry Sound Lumber Company
Ritter Lumber Company, W. M.
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Victoria Harbor Lumber Company
Webb Lumber Company
Wilson Bros.

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Superior Manufacturing Company

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Beck Manufacturing Company, C.
Bromley, W. H.
Cameron & Company
Canada Pine Lumber Company
Cane & Company, James G.
Cleveland-Sarnia Sawmills Company
Donogh & Company, John
Fesserton Timber Company
Fraser-Bryson Lumber Company
Gordon & Company, George
Gillies Bros. Limited
Graves, Bigwood Company
Harris Tie & Timber Company
Hocken Lumber Company
Long Lumber Company
Mackarell & Company, Thos.
Mason, Gordon & Company
Quebec & St. Maurice Industrial Company
Rat Portage Lumber Company
Rideau Lumber Company
Sawmill Owners Sales Company
Snowball Company, J. B.
Spencer, C. A.
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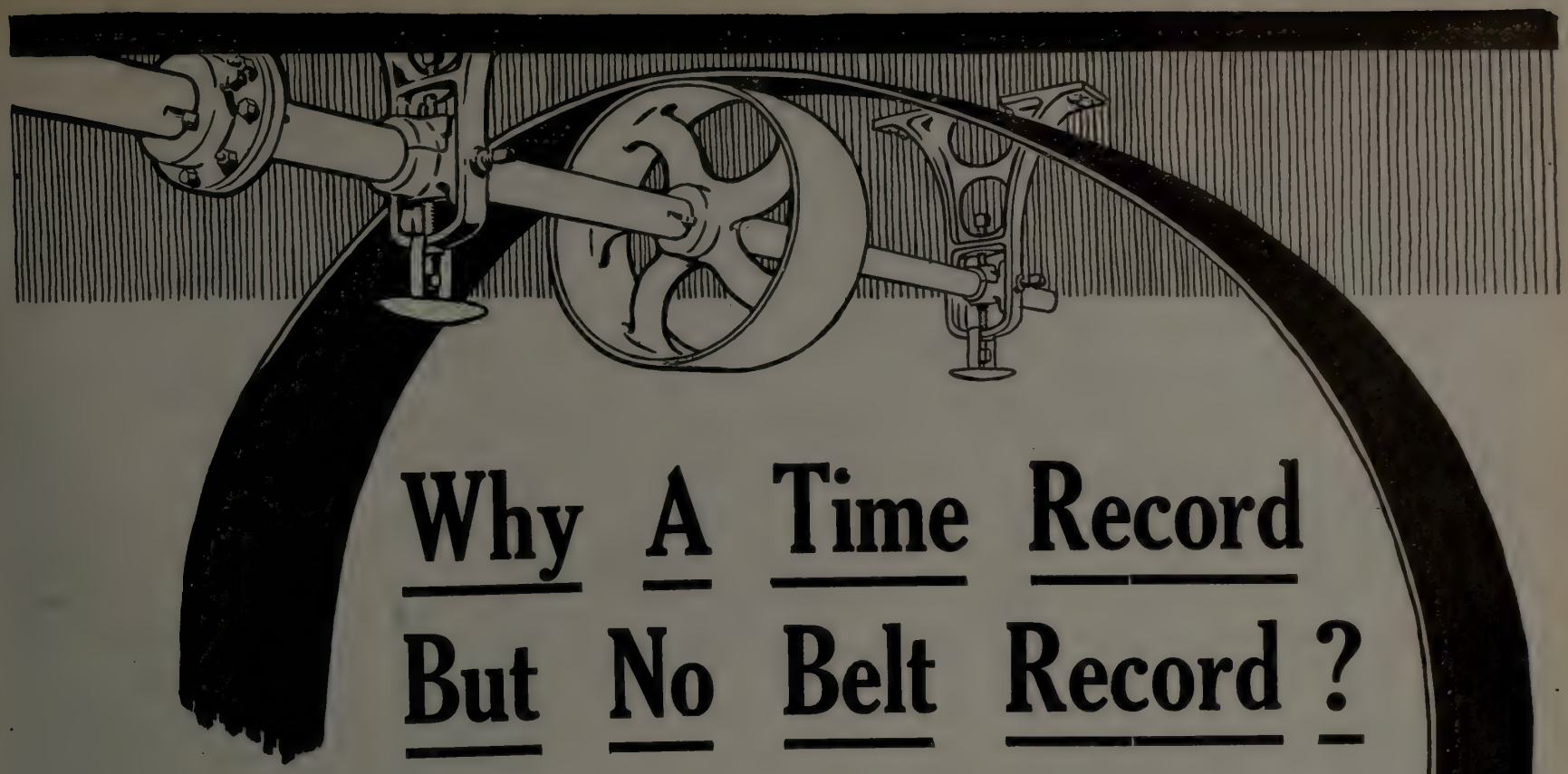
Heyser Lumber Company, W. E.
Wistar, Underhill & Nixon



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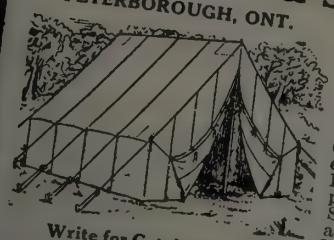

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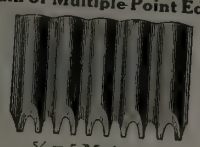

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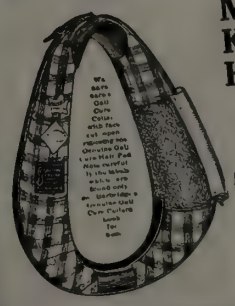

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Should be done on a **Rogers - Buffalo** Full Automatic to get best results. Cut illustrates our Type "B" Grinder, with range from 54" to 130" Price $220 to $395.

We make a complete line of Knife Grinders and Saw Sharpeners, suited to every requirement.

Write for Catalogue.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N.Y.

DIXON'S SILICA GRAPHITE PAINT

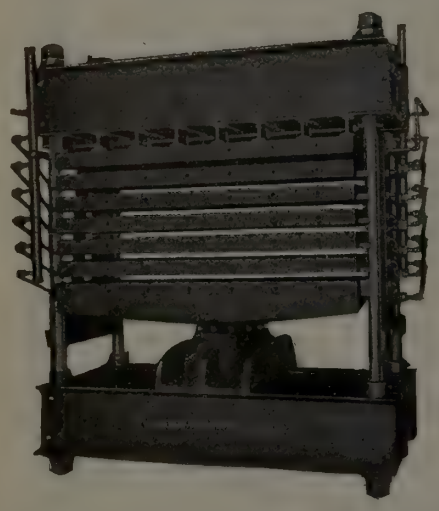
A single application of this protective paint will outlast several coats of any ordinary protective paint, and give greater protection because of the peculiar faculty the natural silica-graphite combination has for practically indentifying itself with the metal. The firm coating will not crack, peel or flake, nor is it affected by agents which quickly destroy all ordinary protective paints.

Send for Booklet No. 238 on "Protective Paint"

Made in JERSEY CITY, N. J. by the

Joseph Dixon Crucible Co.

Established 1827



Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.

TORONTO, CANADA

The Peter Hay Knife Co., Limited

GALT, ONTARIO

MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

Patented Nov. 29-1892
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HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

Do You Want a Salesman?

¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

¶ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.

Canada Lumberman & Woodworker

Toronto, Ontario

Montreal Office, 119 Board of Trade Bldg.

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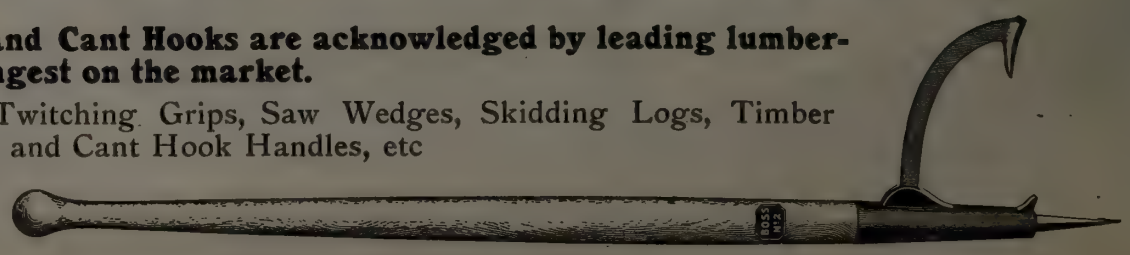
Manufactured by

The McFarlane-Neill Mfg. Co., Ltd., St. Mary's, N. B.

Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumbermen to be the lightest and strongest on the market.

Try our Steel Loading Blocks, Twitching Grips, Saw Wedges, Skidding Logs, Timber Carriers, Split Rock Maple Peavey and Cant Hook Handles, etc

Catalogues furnished and prices quoted on appication



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OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS,

LONDON, CANADA **LIMITED**

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.

Locomotive Boiler on Skids

WE CAN

DOUBLE

THE CAPACITY OF YOUR

DRY KILN

GRAND RAPIDS VENEER WORKS

Dry Kiln Service

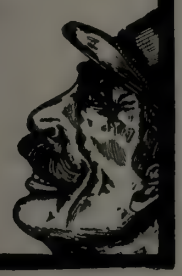
MEANS TO YOU

A Practical Theory
Competent Engineering
Effective Organization
Years of Experience
Guaranteed Results

Grand Rapids Veneer Works

Grand Rapids,

Michigan



Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy
A sure and speedy cure for all kinds of Colic

1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

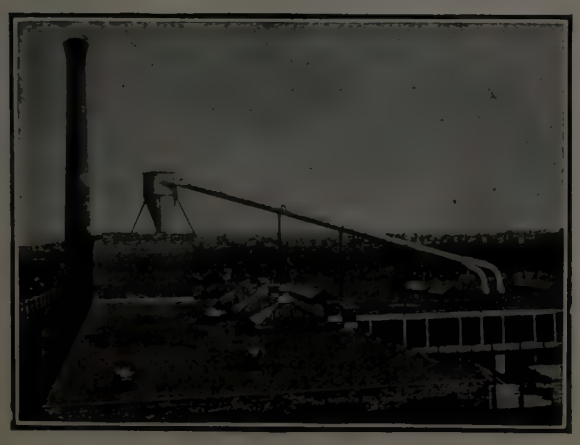
2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**



Exhaust Systems

We design and install Exhausting Systems for Planing Mills, Shoe Factories, Pulp Mills, Grinding and Buffing Plants, or for any business where it is desired to exhaust foul air or convey materials by means of fans. We will be pleased to have enquiries.

Geo. W. Reed & Co., Ltd., Montreal

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better..	62 00	64 00
1½-in. No. 2 C. & B.	45 00	47 00
2-in. No. 2 cuts and better ..	47 00	49 00
4/4 No. 2 and 3 cuts		31 00
5/4 and 6/4 No. 2 and 3 cuts		37 00
8/4 No. 2 and 3 cuts		38 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	**25 00**	**26 00**
1 x 6 common and dressing ..	**27 00**	**29 00**
1 x 8 common and dressing ..	**27 00**	**29 00**
1 x 10 common and dressing ..	31 00	32 00
1 x 12 common and dressing..	34 00	36 00
1 x 10 and 12 mill cull stocks.		24 50
1-in. mill cull sidings		22 50
5/4 and 6/4 x 4 m.r., m.c. out		27 00
5/4 and 6/4 x 5 m.r., m.c. out.		27 00
5/4 and 6/4 x 6 m.r., m.c. out.		27 00
5/4 and 6/4 x 8 m.r., m.c. out.		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out		34 00
2 x 10 common		**26 00**
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common.	25 00	26 00
1 x 12 inch box and common .		27 00
1-in. mill run sidings	**25 00**	**27 00**
1-in. mill run shorts		22 00
1-in. mill run Norway		**23 00**
2-in. mill run Norway		**25 00**
Norway, c. and cf. 1-in.	30 00	32 00
Norway, c. and cf. 1½-in. ...	33 00	35 00
Norway, c. and cf. 2-in.	33 00	35 00
Spruce mill culls		19 00

Hemlock No. 1:

1 x 4 and 5-in. x 9 to 16 ft. ..	19 00
1 x 6-in. x 9 to 16 ft.	21 00
1 x 8-in. x 9 to 16 ft.	21 00
1 x 10 and 12 in. x 9 to 16 ft.	22 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	21 00
1-in. No. 2, 6-ft. to 16-ft.	17 00
2 x 4 to 12, 10 and 16 ft.	21 50
2 x 4 to 12-in., 12 and 14 ft. ..	21 50
2 x 4 to 12-in., 18 ft.	24 00
2 x 4 to 12-in., 20 ft.	26 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 24 ft.	28 00
2 x 4 to 12-in., 22 ft.	26 00
2 x 4 to 12 in., 18 ft.	24 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	17 00
Clear in B. C. cedar, kiln dried.	50 00

Douglas Fir

Dimension Timber up to 32 feet:

8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12 x16, 16x16, 16x18, 18x18, 20x 20, up to 32 ft.	33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.	33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	34 00
10x20, up to 32 ft.	34 50
6x18, 8x18, up to 32 ft.	35 00
6x20, 8x20, up to 32 ft.	36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 to 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath..	5 00
1½-in. No. 2 4-ft. lath	4 75
1½-in. 32-in. pine	2 65
1½-in. No. 1 4-ft. hemlock lath	4 00
1½-in. mill run hemlock lath	3 75
XX B. C. cedar shingles	2 35
XXX 6 butts to 2-in.	3 05
XXXX 6 to 23-16-in.	3 25
XXXXX	3 55

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4..	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4.	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4 ..	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4..	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4.	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds.	46 00
Red oak, plain 1st and 2nds, 4/4 ...	59 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	65 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4.	60 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	65 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common ..	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	**$52 00**	**54 00**
1¼-in. & 1½-in. x 8-in. & up	**55 00**	**58 00**
2-in. x 7-in. and up	**58 00**	**62 00**
No. 2 cuts 2 x 8-in. & up ..	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings ..	30 00	33 00
Pine, No. 1 dressing strips ..	29 00	30 00
Pine, No. 1 dressing shorts ..	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips ..	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips ..	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips ..	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips ..	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft. ...	25 00	26 00
Pine, 1-in. x 10-in. M.R.	**27 00**	**28 00**
Pine, s.c. sidings, 1½ and 2-in.	**28 00**	**30 00**
Pine, s.c. strips 1-in.	**21 00**	**23 00**
1¼, 1½ and 2-in.	**24 00**	**26 00**
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:.		
1" x 4" and up, 6'-11'	17 50	18 00
1"x 3" to 6", 12'-16'	**19 00**	**20 00**
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12 ...	**21 00**	**22 00**
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x 7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16' ..	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16' ...	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	**25 00**	**27 00**
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	**23 00**	**26 00**
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.
White Pine—In the Raft	
First class Ottawa waney, 18-in. average, according to lineal	65 70
Oak—Michigan and Ohio	
By the dram, according to average and quality	60 70
Elm	
By the dram, according to average and quality, 40 to 45 feet	70
By the dram, according to average and quality, 30 to 35 feet	50 60
Ash	
13 inches and up, according to average and quality, per cu. ft.	25 30
Average 16 inch	30 40
Birch	
14 inch, per cu. ft.	20 22
15 inch, per cu. ft.	24 26
16 inch, per cu. ft.	28 30
18 inch, per cu. ft.	32 35
Quebec Spruce Deals	
12 ft. and up x 3 x 9 and up.	$21 00 22 00
Oddments	17 00 18 00
Boards, 1 and 2 in.	16 00 18 00
Birch Planks	
1 to 4 in.	16 00 18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	**42 00**
1¼ in., 8-in. and up wide	**55 00**
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide....	**75 00**
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	**62 00 65 00**

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	**43 00 48 00**

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	**34 00**
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn

1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00

No. 3 Barn

1 inch	21 00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00

Mill Culls

Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft. ...		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring.	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8", 10" and 12" shiplap 10/16 ft.	23 50
B. C. Fir 6" shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths ..	20 00
No. 4 common pine, mixed widths ..	14 50
No. 5 common pine, mixed widths ..	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	2 25

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	52 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	48 00
No. 1 Moulding 6/4	53 00
No. 1 Moulding 8/4	58 00

(Continued on page 64)

Loans on Timber Lands

For Long Periods of Time in Amounts from $25,000 and up

We have been in the lumber business for over half a century.

We now control and operate a number of mills. We also loan money to lumbermen.

It will be to your advantage to deal with practical men who know the requirements of the lumber trade all over Canada.

Our business is to know the wants of the lumbermen and to meet them.

Ontario Bond Corporation of Canada, Limited

HAMILTON, ONTARIO

If you could SEE the heat that escapes from your pipes you would realize how much coal you waste

That's the whole trouble. You can't actually **see** the dollars that are constantly escaping from your poorly insulated pipes—because the heat units are invisible.

As a result, in a few years you have burnt up thousands of dollars' worth of coal—over and above the amount needed to run your plant.

Put an end to this waste by covering your pipes with

JM Asbesto-Sponge Felted Pipe Covering

Actual tests prove that it possesses from 15 to 30 per cent. greater heat-insulating efficiency than ordinary coverings.

Recent figures compiled by Prof. C. L. Norton, Massachusetts Institute of Technology show that, on a basis of 10,000 sq. ft. of pipe, J-M Asbesto-Sponge Felted Pipe Covering saves per year, $19,960.00 over bare pipe, $1540.00 over air cell covering and $1050.00 over moulded covering.

This covering is the most efficient of all high-pressure steam pipe coverings because it confines more "dead air." Made of many layers of thin felt composed of Asbestos fibres and finely ground sponge—with thousands of "dead air" cells in every layer.

Practically indestructible. Can be taken off the pipes and replaced any number of times.

Write our nearest branch for Catalog No. 100.

The Canadian H. W. Johns-Manville Company, Limited

JOHNS-MANVILLE SERVICE COVERS THE CONTINENT

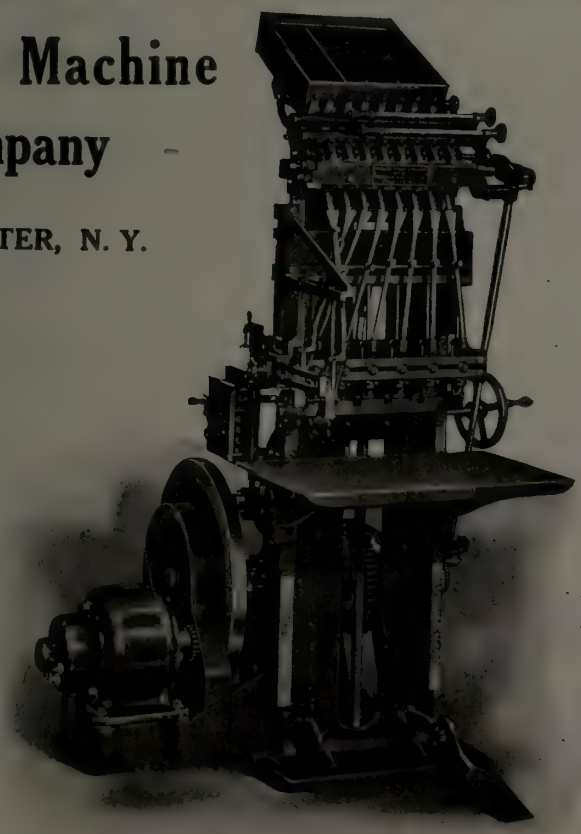
Manufacturers of Asbestos Roofings; Pipe Coverings; Packings; Brake Lining; Boiler Preservative; Fire Extinguishers; Cold Water Paint; Etc.

TORONTO MONTREAL WINNIPEG VANCOUVER

2130

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N. Y.

It requires some investment to insure a constant supply of logs for your mill through the purchase of Clyde Self-Propelling Logging Machinery

But remember.

You pay more and you keep on paying for the skidders and loaders you don't buy.

Now this fact is susceptible of PROOF and we are going to ask you to make us prove it to you.

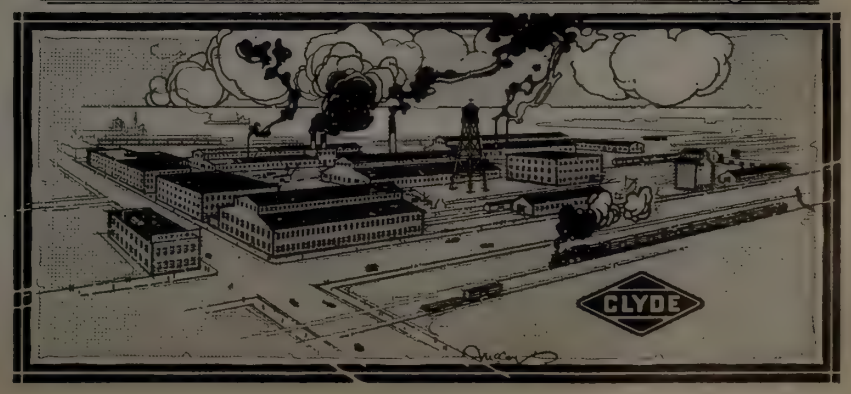
CLYDE IRON WORKS

Manufacturers of Machines for EVERY Logging Operation

· DULUTH · U·S·A ·

"Great Port of the Northwest"

CLYDE



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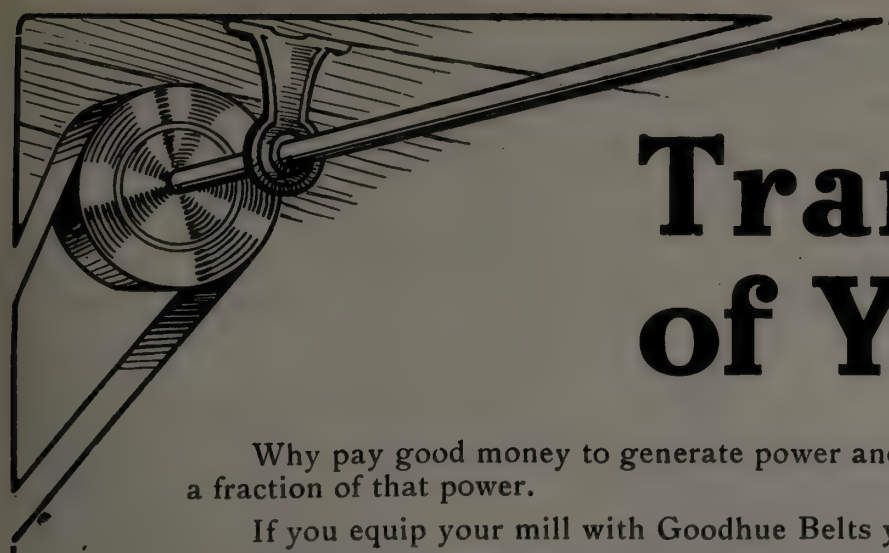
"Wilson Bros." Flooring and Trim

"Wilson Bros." stamped on every piece of this flooring stands for Quality. Look for the name.
Hardwood and Pine. **Interior Finish of All Kinds.** Also Hardwood Veneer Doors to detail.
We are equipped to fill large or small orders on short notice. Write us for prices.

Wilson Bros., Limited - Collingwood, Ont.



Transmit 100% of Your Power

Why pay good money to generate power and then employ a poor belt that will only transmit a fraction of that power.

If you equip your mill with Goodhue Belts you can transmit 100% of the power generated.

Goodhue Belts stretch 15 to 25% less than other belts and have just the right amount of "cling" on the pulley.

Write us for particulars and prices.

YOU CAN DO IT WITH— **A GOODHUE BELT**

J. L. GOODHUE & COMPANY, LIMITED.
DANVILLE, QUEBEC CANADA.

The best one-man for cutting cedar and similar wood

Run Easiest
Cut Fastest
Last Longest

There is a strong array of solid facts to back our assertion that Disston Cross-cut Saws should be used in **every** lumber camp.

They are ground to a true taper all the way from cutting edge to an **extra thin** back. Being ground on lines that conform exactly to the breast of the saw, the blade is absolutely uniform in thickness throughout the entire length of the cutting edge.

This special method of grinding gives the maximum amount of clearance with the minimum amount of set, without sacrificing elasticity and stiffness. You know that all these points are good points, and substantiate our claim that Disston Cross-cut Saws are unexcelled.

While these details are known to lumbermen in all sections of the world, we repeat them for the benefit of the few who may not yet know all the good points of Disston Saws.

It is well to bear this fact in mind; that wherever man has penetrated the forests for the purpose of cutting timber, you will find the Disston the leading Cross-cut Saw. For years and years they have been steadily gaining in popular favor, which is the strongest evidence of their superiority that can be produced.

Section

DISSTON
No. 122
HANDLE

is gaining wider favor every day through its durability and the ease and speed with which it can be attached or detached.

TRADE MARK
Reg. U.S. Patent Office

HENRY DISSTON & SONS, LIMITED

TORONTO, CANADA **Branch at Vancouver, B.C.**

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	30 - 32	20 - 22	14 - 16
5/5 to 8/4	33 - 35	22 - 24	14 - 15
10/4 to 16/4	37 - 39	27 - 29	19 - 21

RED BIRCH

4/4	41 - 43	27 - 29	15 - 17
5/4 to 8/4	43 - 45	29 - 31	17 - 19

SAP BIRCH

4/4	35 - 37	23 - 25	17 - 19
5/4 and up	37 - 39	25 - 27	17 - 19

SOFT ELM

4/4	35 - 37	24 - 26	15 - 17
5, 6 & 8/4	37 - 39	26 - 28	17 - 19

BASSWOOD

4/4	33 - 35	24 - 26	16 - 18
Thicker	35 - 37	26 - 29	19 - 20

PLAIN OAK

4/4	51 - 53	32 - 34	20 - 22
5/4 to 8/4	53 - 55	34 - 36	22 - 24

ASH, WHITE AND BROWN

4/4	45 - 47	27 - 29	18 - 20
5/4 to 8/4	52 - 54	29 - 31	19 - 21
10/4 and up	61 - 63	41 - 43	21 - 23

BOSTON, MASS.

White pine uppers, 1 to 2 in...	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 0	27 00
Spruce, 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce; 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1¾-in. spruce laths	4 15	4 25
1½-in. spruce lath	3 75	3 80

New Brunswick Cedar Shingles

Extras		3 50
Clears		2 90
Second clears		2 75
Clear whites		2 45
Extra 1s (Clear whites out)		1 50
Extra 1s (Clear whites in)		1 0%
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40	3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Cedar Perfection, 5 butts to 2¼		4 80
Washington 16-in. 5 butts to 2 in. extra red clear		3 35

"DUXBAK" Waterproof Clothing

For outdoor wear this "Duxbak" cravenetted coat is just what many lumbermen are looking for. It is light in weight and absolutely guaranteed to be waterproof. The fabric permits of perfect ventilation.

Other "Duxbak" garments are norfolk jackets, long trousers, knee pants, riding breeches, cartridge vests and a variety of caps and leggings, for both men and women.

Write us for booklet.

F. M. DIXON

59 St. Peter St. - Montreal

I would rather stroke a bird's wings than woman's hair.
And the fragrance of the rose pressed against my lips
Is sweeter and more sincere than woman's kisses.
—El-Rami.

Those Who Have Read:
"The Soul of Lillith," written by Marie Corelli, no doubt have been struck by the cynical expressions of El-Rami as to women's constancy. Throughout the whole novel there is a tone of doubt of women in general, though in discussion with Feraz, his brother, he admits there are clever women and faithful women; but further states: "we men seldom choose them, we are fools and we pay for our folly."

There is No Doubt of the high quality of the goods we manufacture, **The High Quality is Constant.**

Take for instance

Harris Heavy Pressure

"the babbitt metal without a fault."

We have spent years in experimenting in our chemical laboratory to produce a babbitt metal which would fill the bill in 95 cases out of 100 where genuine babbitt is used and our sales, which are increasing most rapidly, give evidence that the quality is constant and the metal reliable.

Engineers know that H.H.P. is built for service.
H.H.P. is the best babbitt metal for all general machinery bearings.
H.H.P. will not crack or squeeze out.
H.H.P. runs cool at any speed.
H.H.P. is copper-coated and copper-hardened.

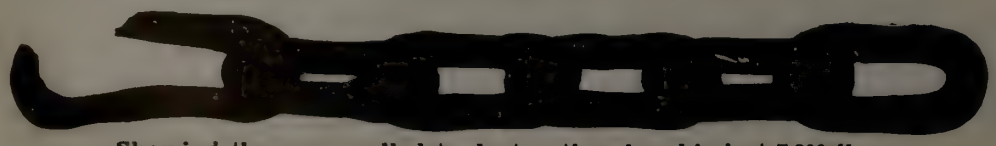
Our reputation and guarantee is back of every pound
Write for Prices

Canada Metal Co., Limited

Head Office, Toronto, Ont.
Branch Factories: Montreal, Winnipeg

What a Test Proved

Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

GET OUR PRICES AND PARTICULARS

Standard Chain Company

Pittsburgh, Pa.
The World's Largest Chain Producers.
Montreal: Alexander Gibb, St. Nicholas Bldg.
Winnipeg: Bissett & Loucks.
Vancouver: John Burns, 329 Railway St.

A New All Ball Bearing Small Band Mill

FAY-EGAN "LIGHTNING" **No. 361**

For sawing small logs into box shooks, spoke and bobbin blanks, chair, wagon and other dimensions. We fit this mill with an Automatic Carriage, so one man can run the entire outfit.

Made with regular carriage for long logs—wheels 54" in diameter, both run in double race ball bearings—upper wheel raises on ball bearing screws—automatic yielding upper guide—new quick action drop trip lower guide—frame and base cast in one piece—cuts faster and straighter with less power and at lower blade cost than any small band mill ever made.

Ask us for Bulletin O-11.

J. A. FAY & EGAN CO.

465-485 W. Front Street

Cincinnati, Ohio, U.S.A.

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

D. C. CAMERON, President and General Manager.

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

THIS GUARANTEE PROTECTS YOU

We have such complete confidence in our sawmill machinery that it is all sold with the following guarantee.

These machines are guaranteed against defective materials and workmanship for the period of one year, and their proper and successful operation is also absolutely guaranteed. Should any part fail through defects, we will replace them free of charge, or should any machine not work properly, we will remove it at our expense, and refund any part of the purchase money which may have been paid to us.

You take no chances when buying our machines, and it is the only kind of machinery you want in your mill.

We build everything needed for a sawmill.

Let us get together

William Hamilton Company

Peterborough - Ontario

6 H.P. Heavy Duty Engine and Reversegear with Winch

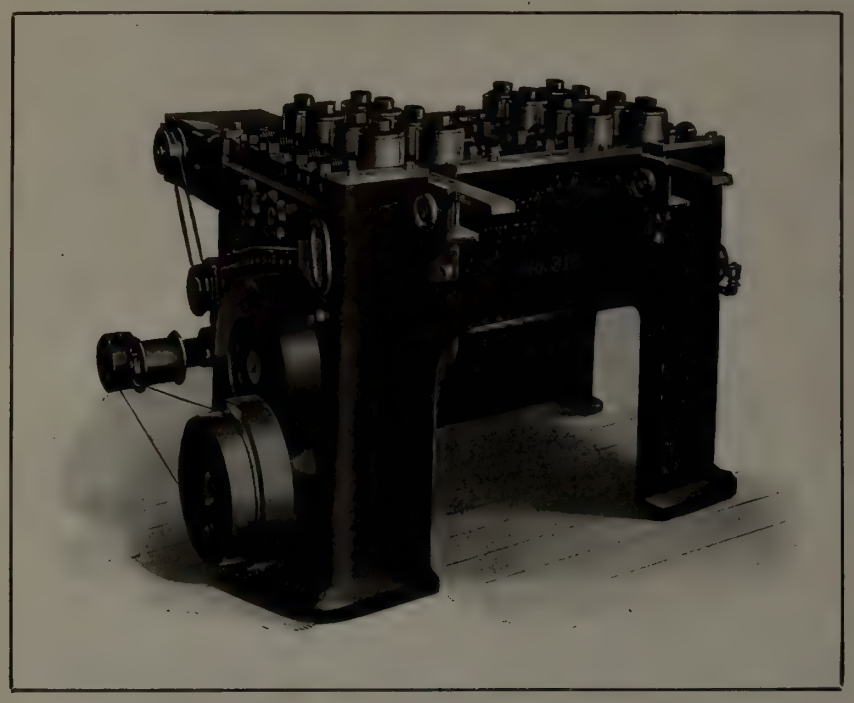
River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25 ft. punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 h.p.

Adams Launch & Engine Co.

Penetang, Ont.

Improved Box Board Matcher



16 driven feed rolls, 4⅛ in. in diameter, each one of which can be adjusted independent of all others.

4½ in. between centres of first and second pair; 5½ in. between centres of second and third pair (the cutters work between this pair) and 4¼ in. between centres of third and fourth pair.

This Matcher is compactly and rigidly constructed with every part readily accessible and the operators are close together when working.

Catalogue gladly furnished which illustrates and describes many other machines built expressly for Box Factories.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN U. S. A.

Your Lumber Horse Needs

A talk with the Lumberman of Canada on the modern and sanitary system we have installed to serve your requirements.

FINANCIAL RESPONSIBILITY.—We are in a position this season to supply the lumber trade with the finest heavy horses suitable for camp work. We have shippers in the very best heavy horse district in Western Ontario, who make personal selections and take only the best. Every horse we ship out is guaranteed to be just as represented by us as to age, soundness, weight and quality—there is more than two million dollars behind this guarantee. These horses can be delivered off the incoming cars and transhipped in an hour from our yards.

SERVICE.—Our barn accommodation is up-to-date in every particular and has stabling accommodation for 500 horses. A track is also maintained for exercising horses while on the company's premises.

SANITATION.—Believing that prevention is better than cure, and to give the very best service possible we have this year employed a veterinary surgeon under salary. A daily and most thorough inspection is made by him of the entire barns and in this way the slightest indisposition is noted and the animal suffering immediately removed to the hospital on the grounds. "Safety first" is our motto in this respect.

TRANSPORTATION.—Our premises being directly on the lines of the C. P. R., G. T. R. and C. N. R., our rail facilities are such that we are in a position to ship on an hour's notice, and loading and unloading chutes are located right at the barn doors.

We gladly invite inspection of our entire system. Come and let us show you the most modern and sanitary system in Canada.

Union Stock Yards of Toronto, Ltd.

Horse Department: **Wm. Read, Sales Manager**

FULL VALUE FOR YOUR MONEY

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD.. VANCOUVER. B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
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SCANDINAVIA

has for many years proven its service giving qualities. It is equally reliable for all direct drives whether straight or crossed. It has a good surface for gripping the pulley, runs true and exceptionally straight. It will pay you to investigate this long lived dependable belt.

Write for Belting Book "THE MAIN DRIVE"

Federal Engineering Co., Limited
Toronto - Montreal

This engine is 13½ ins. x 18 ins. and weighs 35 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run. Oil or coal burning.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

Grey Iron Castings—any size or shape—ordinary or intricate made promptly. New foundry, splendidly equipped. We would be pleased to quote on castings—singly or by contract. We also make drop forgings of all descriptions.

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The Mark THE E. LONG MANUFACTURING CO. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

LIVE ROLLS

The cut includes our Reversible Friction Live Roll Drive; a simple device, the life of which is greatly prolonged because of the perfect alignment insured by the heavy, cast Yoke.

MADE IN ALL SIZES—TELL US YOUR REQUIREMENTS.

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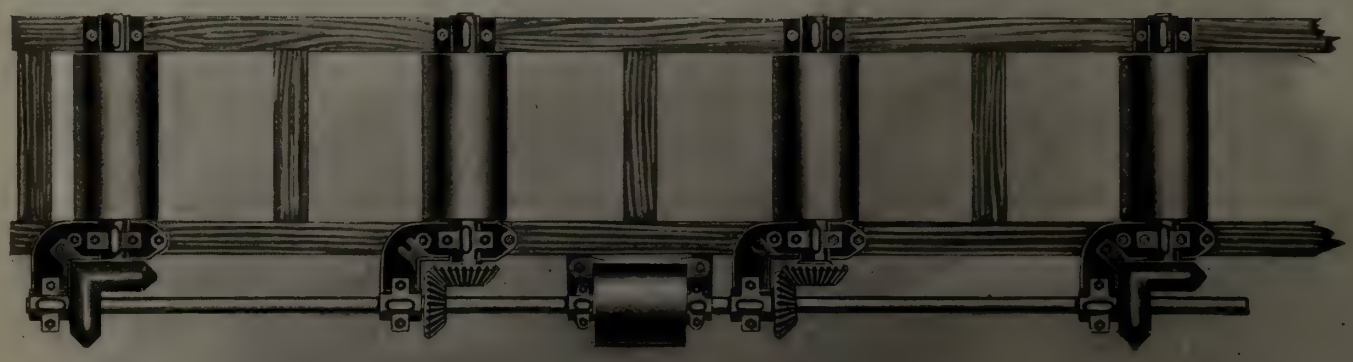
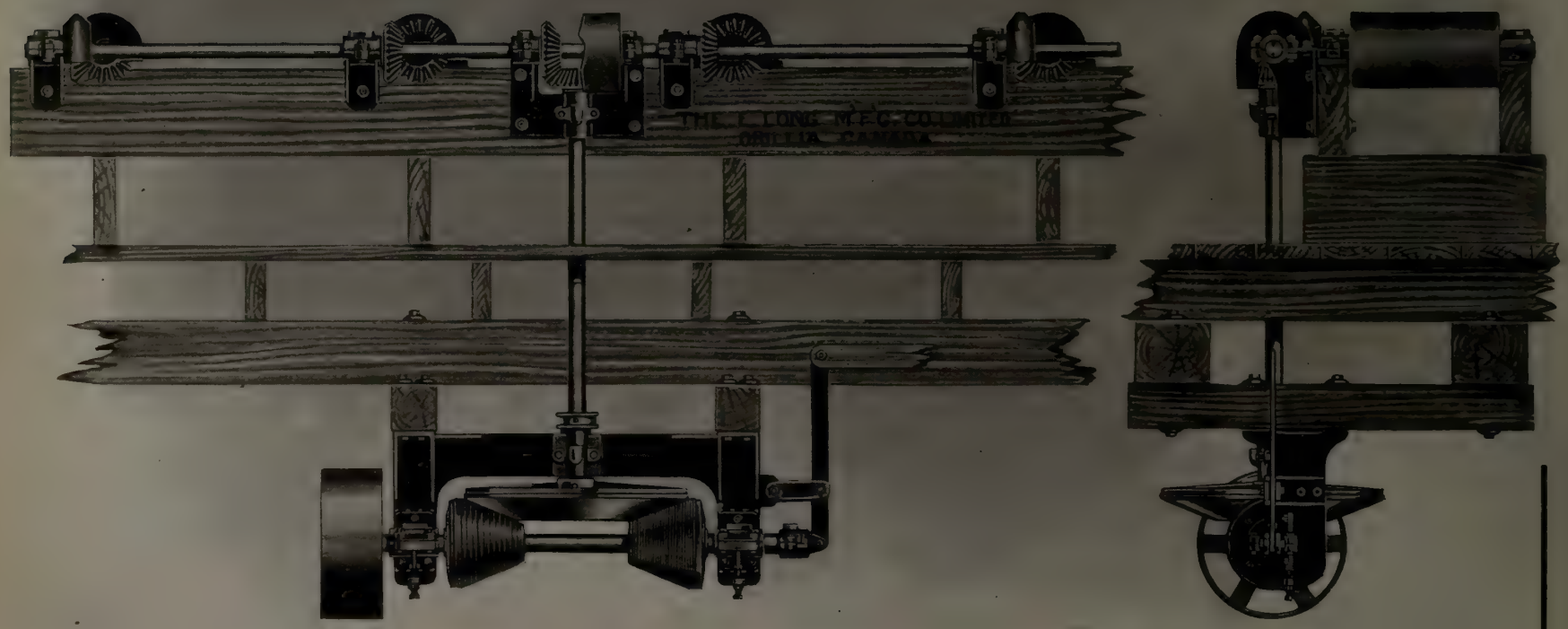


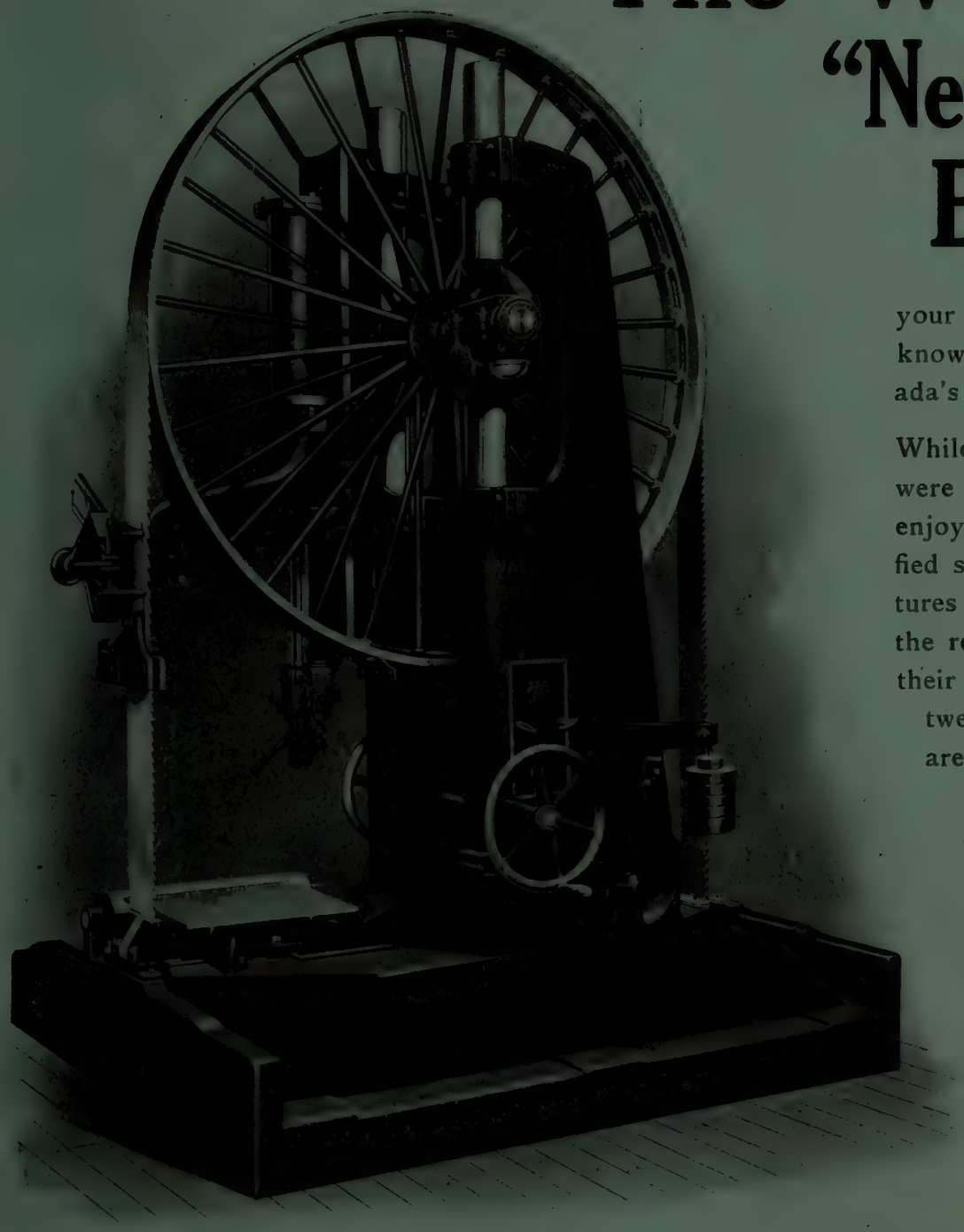


Remember—

that while you should be sure of all your equipment you should be surest of your Bandmill. Upon the efficiency of this one machine more perhaps than upon any other in the mill, the quality and value of your lumber output depend.

In choosing

The Waterous "New Model" Bandmill



your selection is endorsed by the acknowledged preference of many of Canada's largest and fastest cutting mills.

While the first machines sold in 1909 were bought solely on the reputation enjoyed by their producers the unqualified success of the numerous new features introduced by these machines and the records of performance obtained by their use has enabled us to place the twenty-five "New Model" mills which are now in operation.

What is more important, there is not one user of this mill—and we will send you the list—but will unhesitatingly recommend the machine to you.

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BRANTFORD, CANADA

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$5,000,000.00
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Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

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Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

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Stitched Cotton Duck Belting

A trial Belt will convince you. Write for prices and samples.

Excels all others in economy, strength, efficiency and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply **"Maple Leaf"** belt, a light double leather, and a 6-ply rubber belt, showed that our **"Maple Leaf"** Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts
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"Maple Leaf" Belt Dressing is the best for all kinds of belts.

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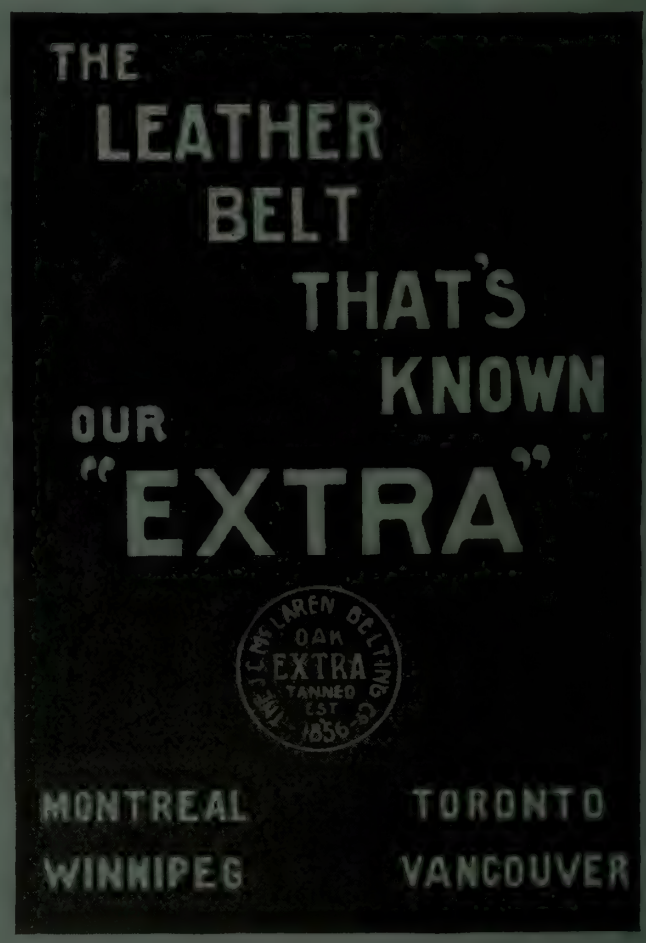

The J. C. McLaren Belting Co.
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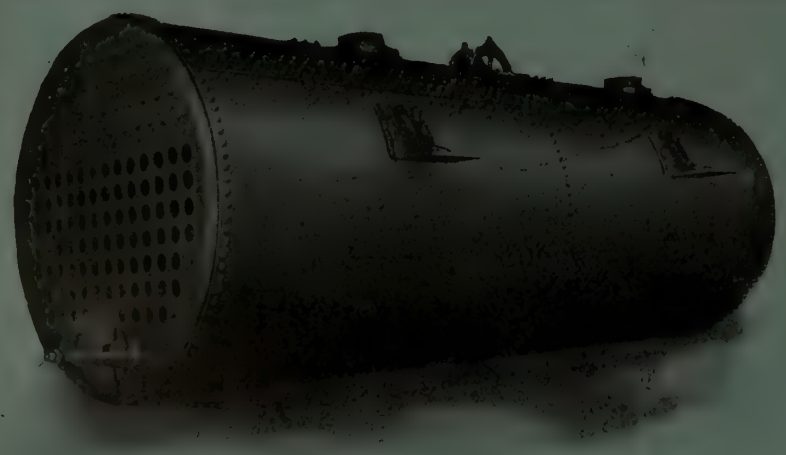

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The rapid cutting File is the economical File

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Electric-Welded Boom Chain

25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

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A Fairbanks-Morse Gasoline Fire Engine will save its cost many times in an emergency.

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We guarantee our "Camel Hair" Belting will outlast, transmit more power, prove easier on bearings, stretch less than any other class of belting running under same conditions, and if our claims are not borne out by results, we are ready at all times to make any rebate on the cost of our belt that will make it cost no more than any other style of belting. Service considered.

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Try us when next in the market for a new pump.

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"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

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WRITE FOR PARTICULARS

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A number 3 Hubbard Oven, 31 square feet of tile baking surface, occupies floor space of 5 ft. x 5 ft. 6 in. Height, over all, from 5 ft. 7 in. to 6 ft. 4 in. Shipping weight *only* 2,100 pounds. Also made in 4 other sizes.

The "Hubbard" portable baking oven equipped with "Perfect Rocer Grates" is a sanitary, economical and efficient baking device for lumber camp use. It is substantially built, compact in design and consumes a surprisingly small amount of fuel.

Accompanying is a list of representative lumber camps using the Hubbard oven with perfect satisfaction.

Every oven is carefully assembled in every detail before being shipped. This assures the purchaser that there wil not be the slightest trouble in erecting the oven at its destination. No special tools are required and every oven is shipped complete.

Write for prices f.o.b. your station.

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View of logs in Sturgeon River

White and Norway Pine Dimension Timber

6 x 6—12/16′,	25,000′	10 x 10—12/16′,	65,000′
6 x 8—12/16′,	50,000′	10 x 10—20/24′,	52,000′
8 x 8—12/16′,	25,000′	10 x 12—16′,	45,000′
8 x 8—20/24′,	38,000′	12 x 12—11/14′,	34,000′
8 x 10—12/16′,	22,000′	12 x 12—16′,	105,000′
8 x 10—18′,	16,000′	12 x 12—20/28′,	40,000′
8 x 10—20/28′,	13,000′	12 x 12—20/28′,	28,000′
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When you want the best in WHITE and NORWAY PINE, write or wire us for prices.

Dressing Done on Short Notice.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Hemlock **Norway**
Spruce **White Pine**
Prices Right

James G. Cane & Co.

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Winter Sawed Hardwoods Ready for Shipment

4/4 Log run Maple	350,000 ft.	6/4 No. 1 C.&B. Maple	60,000 ft.
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4/4 Log run Beech	250,000 ft.		
6/4 "	15,000 ft.		

We have recently installed a complete planing mill and are now in a position to do dressing of any kind on short notice.

Spruce and Hemlock Timbers a Specialty

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

Spruce
White Pine
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Get our stock list and prices.

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War! War!

Forces us to Sacrifice.

100,000′ 1 x 4 and up, No. 1 Mill Culls
800,000′ 1″ and 2″, No. 2 Hemlock, Longford stock
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100,000′ 1 x 4 and 5 C & B White Pine (bone dry)
1 Car 8/4, 1, 2 and 3 Shop (bone dry)
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Special Prices on all of the above.

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"Good Day! Mr. Hocken

I want some more of that good lumber of yours—some

Hemlock

Pine and Hardwoods"

We can make prompt shipment of special bills

Hocken Lumber Company, Limited

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DRY WHITE PINE

2 x 7	-	12/16
2 x 8	-	12/16
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6/4 x 8	-	12/16
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Lumber - Lath - Shingles
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Bromley can submit attractive prices.

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Largest orders filled promptly.

Every board carefully graded.

You should get my wholesale prices.

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"Everything in Lumber"

Large Stocks of Sized or Rough Hemlock and Yellow Pine

Peeled Cedar Fence Posts 5 in. and up, 8 ft., carried in stock at Detroit. Immediate Shipment.

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Write or wire us for your requirements

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Interior Finish

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In car lots or local shipments

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FESSERTON TIMBER CO.

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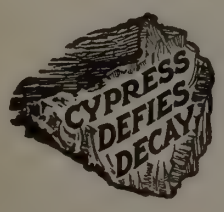

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The rates are most reasonable, write us.

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100,000 Ft.	5/4	1st and 2nd Basswood
2,500 "	8/4	" " "
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13,000 "	3 x 8 to 16"—10 to 16 ft.	1st and 2nd White Ash
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Hardwoods Thoroughly Dry
Your Inquiries Will Have Prompt Attention

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From our wharves in Portland, Maine
Wilson Lumber Co.
Portland, Me.

CAMERON & CO., LIMITED

OTTAWA — WHOLESALE — CANADA

OAK — FIR — WHITE PINE

Specialty --- Dimension Timber

HEMLOCK — YELLOW PINE — NORWAY PINE

Lumber
Lath
Shingles

EASTERN AGENTS
NORTH PACIFIC LUMBER CO., Limited
MILLS AT - - BARNET, B.C.

TIES
POLES
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ESTABLISHED 1855

THE McGIBBON LUMBER CO.
OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

Hemlock Billstuff a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

Interior
Shaw Motor Headworks

Send a Boy on a Man's Errand

This boy actually does the work of five men using any other machine for logging

For full particulars write

RUSSEL BROTHERS
Fort Frances, Ontario.

F. N. Waldie, President. R. S. Waldie, Vice-President. W. E. Harper, Secretary.

The Victoria Harbor Lumber Co., Ltd.

Manufacturers of

Lumber, Lath and Shingles

Mills at Victoria Harbor, Ont.

HEAD OFFICE,
12-14 Wellington Street East, TORONTO, ONT.

TORONTO

White Pine from Bisco

Get our prices on White and Red Pine. We have all sizes at Bisco and can make prompt shipments. We also have Norway at Tomiko, 1913 cut, grade right, prices right.

Leak & Company, Limited
18 Aberdeen Chambers, TORONTO

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Wholesale Dealers

HEMLOCK
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Dry stock in all sizes. *Quick shipments.*

1205 TRADERS BANK BUILDING, TORONTO

FRANK H. HARRIS LUMBER CO., LIMITED

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Yellow Pine and B.C. Shingles always in transit

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MEMPHIS VENEER & LUMBER CO.
Manufacturers
Honduras Mahogany and Sawn Veneers
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Manufacturers
Oak, Ash, Poplar and Cypress
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Mixed Cars

Promptly Shipped

SEND US A LIST OF YOUR REQUIREMENTS AND WE WILL QUOTE AN ATTRACTIVE PRICE.

Oliver Lumber Co.
of Toronto Limited
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PILING

Our Specialty

We always have on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet in length.

We offer for immediate shipment
Dry Spruce—2 x 4, 2 x 6 and 2 x 8.

ARTHUR N. DUDLEY
Lumber, Lath and Shingles
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FOR SALE

Spruce, White Pine Strips and Mill Culls, Norway and Hemlock

Quotations Promptly Made

The Elgie & Jarvis Lumber Co., Ltd.
18 Toronto Street, TORONTO, ONT.

We Have for Immediate Shipment:—

300,000 1″ No. 1 C. & B. Birch	50,000 2″ No. 1 C. & B. Birch
60,000 2″ No. 1 C. & B. Maple	20,000 1″ No. 1 C. & B. Maple
60,000 2″ No. 1 C. & B. Elm	150,000 1″ No. 1 C. & B. Elm
100,000 1″ Cull Elm	

This stock was cut early, is dry, and was taken from an exceptionally good run of logs. We are quoting attractive prices on this lumber for prompt shipment.

SPEARS & LAUDER Manufacturers & Wholesale Dealers
501 Kent Bldg., TORONTO

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices - **Western Office:—Pacific Building, VANCOUVER, B. C.**

To the Owner of Timber Lands

Far sighted owners of timber lands should take advantage of the times incident to the European wars, and prepare themselves for the day when the demand for timber is suddenly thrust upon them. This is certain to come at no distant day. Therefore cultivate a closer acquaintance with your holdings, and the best method of marketing them. Let us prepare the way for you. Remember, we not only report on the property, but assist in marketing the bond issue when necessary. Send for our booklet.

L. E. Campbell Lumber Company

Cruising and Engineering Department

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THE PACIFIC LUMBER CO.

The Largest Manufacturers of

California PTL Redwood

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Used for every purpose for which a soft wood is adapted.
Furnished in any width and thickness.
Manufactured goods of all kinds.

Exclusively Represented by

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Mills:—
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Long Leaf Timbers, Short Leaf Finish and Railroad Material

Send your inquiries and orders to:—

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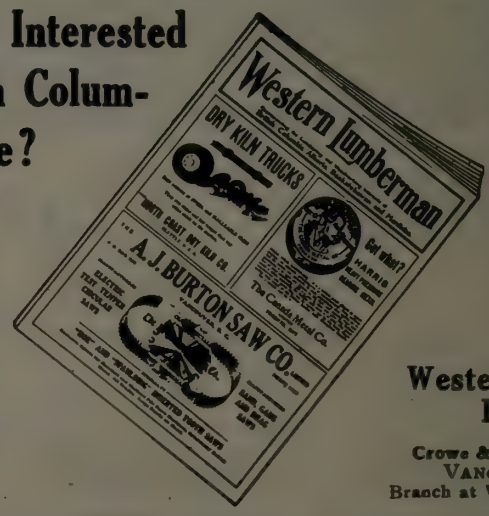
Are You Interested in British Columbia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

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Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE SOLICITED

Mills at:

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On I. C. Ry. 75 Miles East of Quebec City

BATHURST LUMBER COMPANY LIMITED

Manufacturers of Spruce and Pine lumber either rough or dressed Laths and Cedar Shingles

Bleached Mitscherlich Sulphite extra strong Container Board

BATHURST, N. B.

New Pulp and Paper Mill now being erected at Bathurst to utilize the waste of logging and manufacturing.

Construction started July 1st., 1914.

Mill in operation June 1st., 1915.

Capacity

Twenty-five tons daily Bleached Mitscherlich Sulphite.

Sixty tons daily extra strong Container Board.

Buy your lumber from a progressive Company.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada

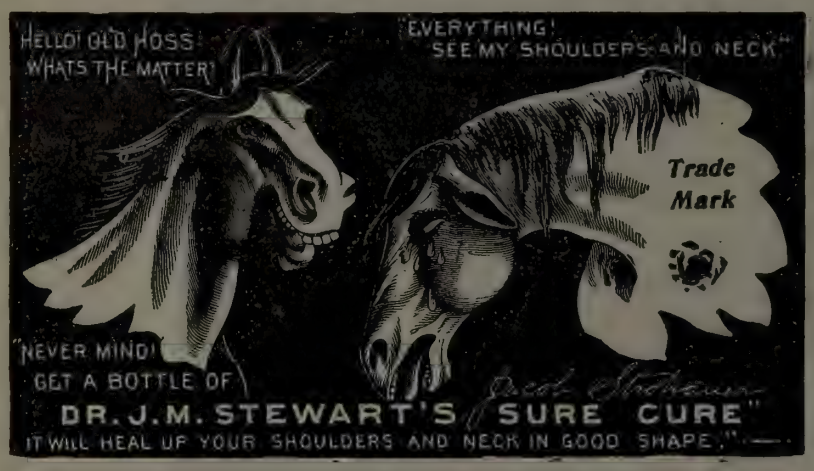
FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Birks Building, VANCOUVER, B. C.


HELLO! OLD HOSS! WHAT'S THE MATTER!
"EVERYTHING! SEE MY SHOULDERS AND NECK"
Trade Mark
"NEVER MIND! GET A BOTTLE OF DR. J. M. STEWART'S SURE CURE" IT WILL HEAL UP YOUR SHOULDERS AND NECK IN GOOD SHAPE."

Keep Stewart's Veterinary Remedies in Your Stable

Stewart's Sure Cure (antiseptic gall cure) the original in liquid form	16 oz. bottles	$9.00 doz.
Stewart's Excelsior Liniment	32 oz. bottles	9.00 doz.
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Stewart's Pure Condition Powders	2 lb. air tight tin can	4.50 doz.
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Stewart's Hoof Ointment	1 lb. can	5.00 doz.
Stewart's Heave Relief	Large can	5.00 doz.
Stewart's Cough and Distemper Cure	50 doses to bottle	7.00 doz.
Stewart's Proud Flesh Powders		2.50 doz.

The Palmer Medical Co., Limited

WINDSOR, ONT.

Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is positively right, and prices will please

Timberland Lumber Co., Limited

Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.

Mills at Craigs on the B.C.E.R.

Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

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MANUFACTURERS OF

British Columbia Red Cedar Exclusively

4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding.
8, 10 and 12 inch CLEAR CEDAR FINISH.
EXTRA XXX RED CEDAR SHINGLES.

Eastern Agents, Gull River Lumber Co., Ltd., Lindsay, Ont.

Head Office and Mills, Port Moody, B.C.

→ KNIVES ←

Good Steel Carefully Manufactured
Properly Tempered

Ask for Catalogue and Quotations

Galt Knife Company, Limited
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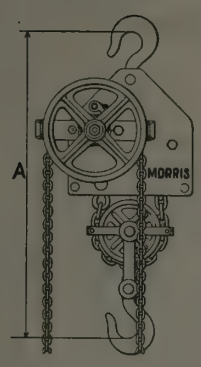
MORRIS CHAIN-BLOCKS



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EMPRESS WORKS, PETER STREET, TORONTO.

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.
TORONTO, CANADA

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

POWER PLANT

2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The
Parry Sound Lumber Co.
Limited
26 Ernest Avenue, TORONTO, CANADA

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, **Cincinnati, Ohio.** *Write for prices.*

Service First

He profits most who serves best.

Satisfaction Guaranteed

Stearns Quality Stock

45 M 1 x 6 in. and wider 1s and 2s End Dried White Basswood.
36 M 1 x 6 in. and wider 1s and 2s Basswood.
18 M 5/4-6 in. and wider 1s and 2s Basswood, 50 per cent. 16 ft.
19 M 6/4-6 in. and wider 1s and 2s Basswood.
78 M 4/4-7 in. and wider No. 1 Common Basswood.
27 M 5/4-3 in. to 6 in. No. 1 Common Basswood.
32 M 4/4-7 in. and wider No. 2 Common Basswood.
62 M 5/8 No. 2 Common and Better Beech.
48 M 4/4 6 in. and wider 1s and 2s Beech.
74 M 4/4 6 in. and wider No. 1 Common Beech.
86 M 6/4 3 in. and wider No. 1 Common Beech.
68 M 8/4 No. 2 Common and Better Beech.
72 M 4/4 6 in. and wider No. 1 Common Birch (Red all in).
45 M 4/4 1s and 2s Soft Gray Elm.
90 M 4/4 No. 1 Common Soft Gray Elm.
70 M 4/4 No. 2 Common Soft Gray Elm.
79 M 4/4 No. 2 Common and Better Soft Maple.
21 M 8/4 No. 2 Common and Better Soft Maple.

The Stearns Salt & Lumber Co.

Ludington, Michigan

W. M. RITTER LUMBER COMPANY

Below is List of Dry Lumber We Can Ship Promptly

POPLAR
We can furnish all thicknesses and grades from 5/8 to 4 in.

RED OAK
4/4 firsts and seconds, 2 cars.
5/4 firsts and seconds, 1 car.
6/4 firsts and seconds, 1 car.

WHITE OAK
3/8 firsts and seconds, 1 car.
1/2 firsts and seconds, 1 car.
3/4 firsts and seconds, 2 cars.
4/4 firsts and seconds, 1 car.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 3 cars.
8/4 firsts and seconds, 2 cars.
No. 1 common we can furnish in all thicknesses from 3/8 to 2 in.

CHESTNUT
Can furnish all grades and thicknesses from 4/4 to 8/4 in Chestnut.

BASSWOOD
Can also furnish any grades in 4/4 that you require.

The above is a list of dry stock which we can ship promptly. All our own manufacture, band sawed and thoroughly dry. Do not place your order before writing for prices.

CANADIAN REPRESENTATIVE:

John Hall, Box 32, Toronto, Canada

Phone College 6997

W. M. RITTER LUMBER COMPANY — COLUMBUS, OHIO

CAFLISCH BROTHERS

HARDWOOD LUMBER

Wholesale Distributing Yards and Sales Offices

JAMESTOWN, N.Y.

Mills at—

Union City, Pa. **Monticello, Ky.**
Hambleton, W. Va. **Ross Point, Ky.**

Full assortment of grades and thicknesses in Quartered and Plain Oak, Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS. ***IMMEDIATE SHIPMENTS.***

LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

Wistar Underhill & Nixon

Real Estate Trust Bldg., Philadelphia, Pa.

Canadian Representatives:
G. H. Johnson, 125 Tyndall Avenue, Phone Parkdale 736, Toronto, Ontario
Mr. Gilbert B. Woodhull, Box 54, Toronto, Ont.

Hoffman Brothers Company

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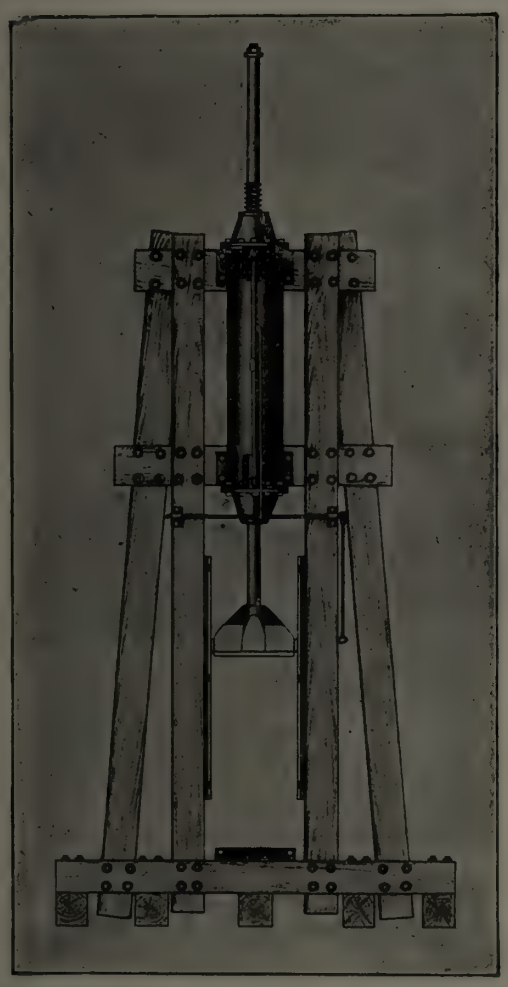
Manufacturers of Hardwoods—Any Thickness From

1/30″ SLICE CUT VENEER
1/20″ SAWED VENEER
to
2″ BAND SAWED LUMBER

Specialty:

QUARTERED WHITE OAK



WM. E. HILL CO.

Kalamazoo - Mich., U. S. A.

Manufacturers of

Saw Mill Machinery

"The line *that is imitated*"

A CONTRAST

You may be employing more than three men to saw, split and carry your wood. Why not replace the men with the saws with one of our STEAM DRAG SAWS or CIRCULAR CUT OFF MACHINES, the men with the axes with one of our STEAM SPLITTERS and the men who carry with an up-to-date CONVEYOR?

The machine shown here is a STEAM SPLITTER for splitting bolts 3 feet to 5 feet long. We also make a machine for splitting bolts 12 inches to 22 inches long up to 30 inches in diameter.

We will be pleased to furnish a catalog, prices and any information you particularly desire upon receipt of your request.

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

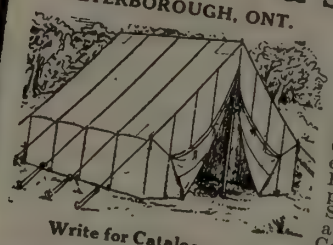
It's a Pink anyway you take it, and it's the best Peavey made.

Leading Firms

CATERING FOR

Mill, Factory and Camp Business

J. J. TURNER & SONS
PETERBOROUGH, ONT.



The largest Manufacturers and Dealers in Canada of Lumbermen's Tents Bed Ticks, Grey Blankets, Nose Bags, Waterproof Goods, Steel Ranges and General Camp Outfits.

Write for Catalogue. Prompt shipments.

A good Steel Range for Camp Use

Can be fitted to burn wood, coal or coke. Special price to lumbermen.

ALGONQUIN STEEL RANGE.

Write us. **NATIONAL MFG. CO., LTD, Ottawa.**

Caldwell's Molasses Meal

Guaranteed to contain 84 per cent. Pure Cane Molasses

Increase the efficiency of your horses, keep them free from Colic and indigestion

Leading lumber camps now using it

WRITE FOR ILLUSTRATED BOOKLET

Caldwell Feed Co., Ltd.
Dundas, Ont.

CAMP SUPPLIES

The Lumber field in Canada is large, but it can be economically covered through the

Canada Lumberman & Woodworker
TORONTO, CANADA

BELTING
of every description
HOSE, AND MILL SUPPLIES
We Guarantee Satisfaction
Write for Net Price List
N. SMITH
138 York Street, Toronto, Ont.

Saddle Tank Locomotives
Geared Locomotives
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ALL SECONDHAND
Correspondence solicited.
SESSENWEIN BROS.
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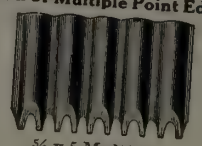
Corrugated Joint Fasteners
Plain or Multiple Point Edges

Packed in bulk or packages.



Write for samples and prices.

5/8 x 5 Multiple
Any depth and any number of corrugations

The Steel Co. of Canada, Limited
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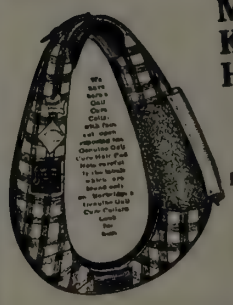

Maple Leaf Kanthurt Horse Collars
(PATENTED)
These collars will not hurt your horses' shoulders.
No. 62 Lumber, Hogskin face, $37.00 doz.
Saddlery & Moccasins
S. & H. Borbridge
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Anchor Brand Oats
In Bulk or Sacks
The Best Oats on the market. Let us fill your next order and prove what we say.
Write or Wire for Prices.
ANCHOR ELEVATOR CO., LTD.
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"OMAZON"
Nourishing and Medicinal Powder
Cures and invigorates the horse by its general action on the Stomach and Bowels.
Sold in packages and in pails.
Dr. Ed. Morin & Co., Ltd.
QUEBEC

W. H. Dwyer & Co., Ltd.
OTTAWA, ONT.
Offices also at Fort William and Montreal
Largest Wholesale Dealers in Hay and Oats in Canada
Write or wire us at any of the above offices. We do the rest.
"HE WHO SERVES BEST PROFITS MOST."

Everything in Harness

TRADE MARK
"The Alligator Brand"
Special strong harness for lumber horses.

Lamontagne Limited.
Balmoral Block, MONTREAL

C. Beck Manufacturing Co., Limited

PENETANGUISHENE, ONT.

PINE LUMBER

Lath, Boxes, Shooks, Wooden Pails

We can Dress, Match and Resaw. Order this way and save money

"WE AIM TO SERVE YOU WITH THE BEST"

"DUXBAK" Waterproof Clothing

For outdoor wear this "Duxbak" cravenetted coat is just what many lumbermen are looking for. It is light in weight and absolutely guaranteed to be waterproof. The fabric permits of perfect ventilation.

Other "Duxbak" garments are norfolk jackets, long trousers, knee pants, riding breeches, cartridge vests and a variety of caps and leggings, for both men and women.

Write us for booklet.

F. M. DIXON

59 St. Peter St. - Montreal

FEED NATIONAL OATS—*There is a Reason*

Judicious buyers supply their camps with

National Oats

for they know these oats to be first in quality and value.

Sacked Shipments

are made in heavy, strong, well-sewn bags in special anticipation of the rough handling incident to camp use.

Our More Than Sixty Elevators

in the best oat-growing sections of the West supply these oats. If you want to provide for the winter in time, write or wire us for prices now.

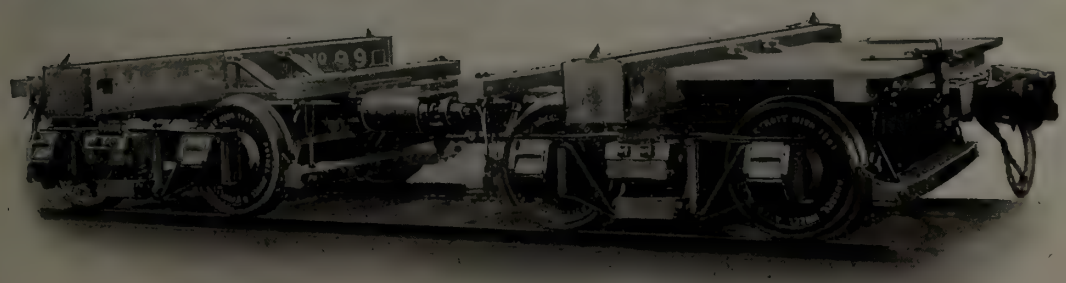
National Elevator Co., Limited

The Oat Specialists

Calgary, Alta. Winnipeg, Man. Port Arthur, Ont.

RUSSEL LOGGING CARS

Mr. Lumberman



It's the Russel Car you will be interested in. The Russel Car is unsurpassed in quality, service and capacity.

Built for any capacity and to accommodate any length of log desired.

—Canadian Representative—

Vancouver Machinery Depot Limited

Vancouver, B. C.

Russel Wheel & Foundry Company, Detroit, Mich.

Do You Want More Business?

Will you send for and USE Selling Assistance—it will not cost you one penny—that will increase the demand for lumber in your locality?

During one week we shipped 15,000 "Building Use Books" to dealers who previously had used our advertising and literature and who wanted additional selling aid because it was worth money to them.

A 500 per cent Increase

With a request for a large number of books one dealer submitted the following report:

> **"You will remember we distributed one of your books earlier in the year and we believe it has resulted in benefit to us and probably to other dealers in this city who use your stock. We already have had more Arkansas Soft Pine in our yard this year than any two years previous since we have been in the retail business." (Letter bears date of September 16.)**

You can sell more lumber if you go about it in the right way and we are convinced—from the testimony of those with whom and for whom we are working—that we have found the right way.

If you want more business or want business on a better basis get in touch with the ARKANSAS SOFT PINE BUREAU, 1738 Transportation Building, Chicago. Write today.

Southern Lumber Company	Warren, Ark.
Stout Lumber Company	Thornton, Ark.
Valley Lumber Company	Reader, Ark.
Wisconsin & Arkansas Lumber Company	Malvern, Ark.
Arkansas Land & Lumber Company	Malvern, Ark.
Arkansas Lumber Company	Warren, Ark.
Cotton Belt Lumber Company	Bearden, Ark.
Crossett Lumber Company	Crossett, Ark.
Eagle Lumber Company	Eagle Mills, Ark.
Edgar Lumber Company	Wesson, Ark.
Fordyce Lumber Company	Fordyce, Ark.
Freeman-Smith Lumber Company	Millville, Ark.
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Belting that Pays

In the saw mill where varying stresses are placed on belts momentarily such service calls for belting of unusual quality, service and durability.

That is why Goodyear belts are designed and made to meet actual working conditions. Long before any piece of Goodyear equipment is made, actual working conditions are studied and proved out by Goodyear experts. In this way, every Goodyear product is a service product because not made to meet a price.

"Extra Power"

This is a high speed belt for heavy drives. It shows the highest friction pull of any belt we have ever tested. "Extra Power" stands up under most gruelling service. The duck is the heaviest and strongest we use. All materials are laboratory tested for super-power. The stretch is taken out in the making. Ply separation rarely occurs with this belt.

GOODYEAR MADE IN CANADA Belting

"Imperial"

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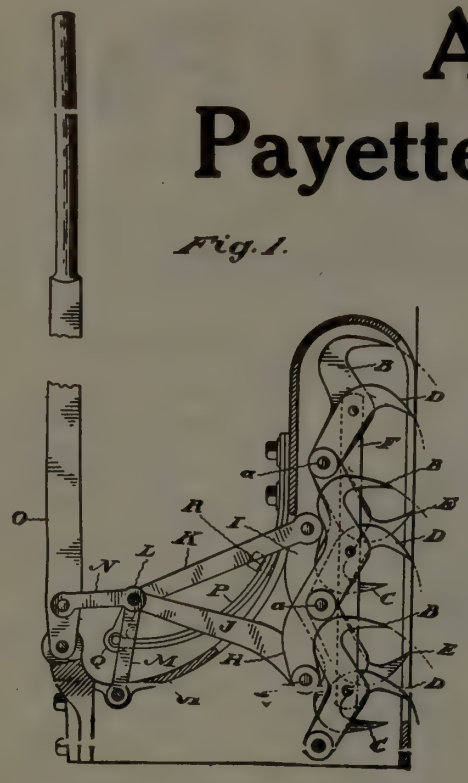

Fig. 1.

BECAUSE

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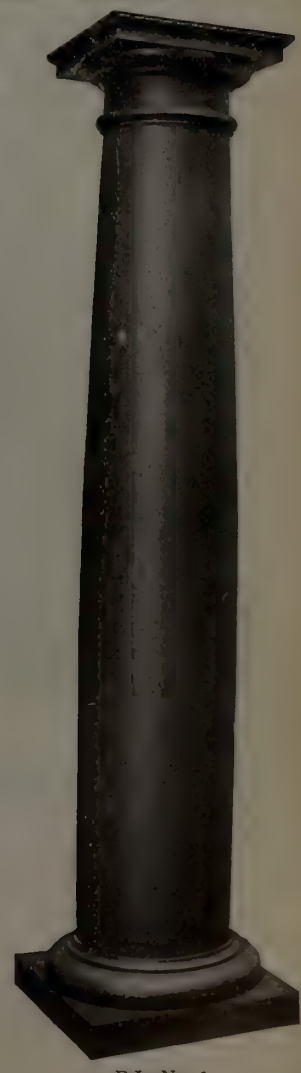

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Canada Lumberman & Wood Worker

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Vol. 34 Toronto, October 15, 1914 No. 20

The MacLean Building

The above illustration shows the new offices of the Canada Lumberman and Woodworker in the MacLean Building, 347 Adelaide Street West (east of Spadina Avenue), Toronto. Readers are requested to note the change of address. The Telephone numbers have also been changed and a switchboard installed to provide a more adequate service. Hereafter all Departments will be reached by calling Adelaide 2700.

The Trade Journal as a Business Factor

A few years ago there came a temporary lull in business activity early in the autumn, and, as generally happens at such a time, there were a number of firms which decided to reduce their advertising. In the book publishing business, this policy became probably more general than in any other. Firms which were accustomed to using frequent advertising space stopped doing so almost altogether. Very few books were advertised at all. The immediate result was a still greater decrease in the volume of trade in that particular line of business. Whether the firms which reduced their advertising saved money by this policy is not the point of interest at present. There was one large firm, at the head of which was a man who looked deeper into business problems than most of the others. His office was in Toronto and he represented throughout Canada a number of large publishing houses. He saw that the other firms were not advertising and he realized that, with Christmas in the near future, there would be a large number of books sold, whether they were advertised or not, so he selected the best book he then had in stock as a prospective Christmas item and he advertised it liberally. When the other publishers woke up it was too late. This particular firm swept up practically the whole Christmas trade that year and by New Year's day the book-reading public was talking about this book. It was a book which would have sold on its own merits with a fair amount of advertising, but when extensively advertised under such circumstances it became the book of the season and all through the following three or four months its sales continued on a heavy scale.

Books are not quite the same thing as lumber from an advertising point of view, but there is a simple fact in the above story which any lumberman can keep in mind to his own certain advantage, namely; when the other fellow commences to fear business depression and to reduce his efforts to get trade—when he gets cold feet to put the matter tersely—that is the time to speed up and go after new business, whether by advertising or by individual effort. There are some firms in the lumber business, at the head of which is a man or a board of directors who believe that their goods cannot be advertised profitably. We have discussed this point in print and in conversation with many lumbermen, but are not yet convinced that we have come across a single definite case where careful study of advertising methods would not bring profitable results.

Leaving aside entirely the idea that a lumberman ought to support his trade journal because of the advantage he secures by reading it and by having his employees read it, there is always the indisputable fact that manufacturing or wholesaling lumbermen handle goods which are bought by somebody, and that, in very close to 100 per cent. of the cases the buyer is a man who reads his lumber journal. If a lumberman thinks under such circumstances, that he cannot increase his sales by advertising he is really admitting, either that he has not given the matter sufficient study, or that he is not sufficiently in touch with advertising methods to devise a campaign adapted to his particular requirements. Manufacturers, whether individually or in association groups, wholesalers, commission houses, etc., have all disproved the idea that a lumber business cannot make a profit out of advertising.

If advertising is a good proposition under ordinary conditions what about conditions such as those which exist to-day? Who is the wiser man, the one who cuts out his advertising expenditure, or the one who pays special attention to its details and considers advertising as a means of keeping up business activity, particularly in dull times? Individual considerations, based to some extent upon a firm's bank account, will have something to do with the situation, but as a practically general rule, it has been proven, too conclusively to permit of argument, that the firm which is doing a good business in times of ordinary activity cannot afford to neglect the assistance of advertising when trade conditions become disorganized as they have been by the present war. The value of a trade journal both to its readers and its advertisers is not a matter of any uncertainty. One who is engaged in retail trade in such a line as furniture, or boots and shoes, or any other commodity which permits of the use of a store window,

might just as well pull down his shutters in dull times as might a lumber manufacturer or wholesaler reduce or eliminate his advertising. The cases are on all fours with one another. If a man desires to increase his trade difficulties he needs only to stop letting his customers know about what he has to sell and he will soon find trade as bad as it can possibly be. On the other hand, truthful and well planned advertising will go a long way to-day, not only towards improving the trade of the individual firm, but also towards improving trade conditions in general.

As to the value of a trade journal from the reader's point of view, there is no room for doubt, especially in times like the present. Surely, when a journal is devoting its efforts entirely to spreading information regarding trade opportunities and business methods in connection with a particular line of trade, its value is as great, if not greater during times like the present than during ordinary business periods. In every sort of business weather, the trade journal is one of the most valuable factors in business, but especially at present, is it of importance to its readers. There are numerous firms which not only take the Canada Lumberman and read it carefully, but which make a point of searching it for information which can be used to advantage and making an index of such articles. We know of others, we regret to say, who pile up the copies of the journal in a stack and some day dispose of them to old paper purchasers without having read them to any extent. Among such firms as the latter we find those who are inclined to doubt the value of advertising. They are not so numerous as they were a few years ago. There will always be successful business men and men who are failures and we suppose those who take their trade journal for a time and do not read it, will always be with us. They have a hazy notion that a trade journal should be taken as a matter of business, but they have not that business initiative which enables them to dig out valuable information and turn it to advantage. On the other hand those who do appreciate the value of the trade journal are daily increasing in numbers and we feel reasonably certain that one definite result of the present unprecedented business conditions will be a far greater understanding of the value of trade journals, both to the reader and to the advertiser, than ever existed in the past. Signs are already pointing clearly to this result.

The Factors in a Salesman's Success

Personal acquaintance with many of the lumber salesmen in Canada and a few of those who visit Canada from the United States is one of the pleasant features connected with the editing of the Canada Lumberman and it has led us to a firm belief in the value of a high moral standard in the business of selling lumber. Those men who are recognized as the leading lumber salesmen to-day are invariably successful, not only because of their natural ability as salesmen, but also because of the fact that they recognize the right of the customer to fair treatment. The modern idea in connection with selling which is so precisely described by the word "service" is to a great extent nothing more nor less than the old time truth that honesty is the best policy; for "service," comes from strict adherence to honest methods throughout all business dealings. We recently dealt at some length with this subject in an editorial about the "square dealer" and the fact that he is now reaping the benefit of his ideals to a greater extent than ever before. In the present issue we have printed an article running along somewhat similar lines, though viewing the matter from a somewhat different angle, wherein the writer Mr. G. D. Crain, Jr., a well known contributor to some of the woodworking journals, tells how he would go after business and handle it, if he were a salesman. Mr. Crain's article has two outstanding ideas; first the value of personal knowledge about one's business and second the value of a reputation for square dealing. "No salesman," he says, "can know too much about his goods, and yet it seems to be true that the average salesman of lumber, equipped merely with a stock list and a few stereotyped descriptive phrases, knows the minimum about the merchandise he is trying to sell. Maybe this is one of the reasons why his chief argument is that his price is lower than that of anybody else. If he knew more about the lumber, he could forget price for a little while and talk quality."

Probably every lumber salesman has admited the truth of this to himself a good many times and has made attempts to put it into practice and yet some of them have met with obstacles either in the way of competition so fierce that they have not had the backbone to put their ideas into practice, or obstacles in the way of a policy on the part of the heads of their firms not to take them into their confidence sufficiently to enable them to follow out the line of conduct they think best. The human element is so strong in all business transactions and there are so many human elements to consider in the completion of a single contract, that the individuality of the salesman is liable to be eliminated between the others, and yet it should not be so. The successful salesman, the one who is confident of the wisdom of a line of business conduct such as we have outlined, and who has that force of character required to bring this fact to bear upon his business, will make his own individuality the principle factor.

The ideal relation between a salesman and his firm is one which recognizes the fact that the salesman, at the time he is dealing with a customer, is the firm—nothing more nor less—and that he ought not only to know all that is necessary for the securing of a contract, but as much more as the firm can give him in the way of information about its stocks and methods of doing business. If the firm cannot trust all this information to its salesmen there is something wrong, either with the salesmen or with the firm, and if one of them does not suffer as a result, the customer is sure to suffer before very long.

When it comes down to an analysis of details, the salesman should be, if anyone, the best posted man in regard to the stocks which his firm has for sale. It is more important that he should be armed with everything necessary for disposing of these stocks at a profit, than that any other member of the firm should be so equipped. The organization of a selling firm, whether manufacturers or wholesalers, should keep this idea to the front all the time. The salesman should know all there is to know about the stocks and as much as he can legitimately discover about the requirements of customers. Then if he is backed up with efficient service in the carrying out of contracts the results of his work will depend solely upon his own ability as a salesman. If he is naturally a good salesman the firm will reap the greatest possible benefit. There is no other road to permanent success in the selling of lumber than those outlined above, and the truth of this statement is recognied by successful firms all over the country. We would suggest, as a means of stimulating those who are looking for assistance in this connection, that they should read carefully the article by Mr. Crain which appears elsewhere in this issue.

To Improve Business Avoid Price Cutting

One of the things which it is hard for the average man to understand, especially the man who conducts his business on a basis which takes into consideration the necessity for a profit upon all sales, is the manner in which so many people continue to offer "bargains," and so many other people continue to buy them. No amount of experience apparently will permanently reduce the percentage of people who have a natural leaning towards bargains, and no amount of business failure will apparently reduce the percentage of people who imagine that they can lift themselves by their boot straps—or, in other words, that they can sell goods at a loss and, through some peculiar intervention of providence, come out ahead of the game. Unquestionably the idea of making a profit out of the sale of a bargain is based upon

a false assumption. Its danger lies in the fact that, like many another form of stimulant, whether for business or for personal use, it contains within itself, elements which frequently produce a disastrous habit. The selling of something for less than it actually costs, or for a price which does not actually include a reasonable profit is a good enough practice by way of advertising one's business, if it can be confined within sane limits. The danger is that when a man has purchased stock at a bargain he wants more of the same. The buyer and the seller are likely to form a bargain habit before they are aware of it.

Now there is no line of business in the world in which the principles of sound merchandising can be neglected continuously without producing failure. In the selling of lumber, no less than in the selling of farm products, or any other merchandise, there must be a profit for the seller. And not only must there be a profit over a long period, but there should be a profit on every transaction. If a man who is selling lumber goes out among the trade and offers his stock at prices below what they have cost him, he is, as a rule, either pressed for money, or is carrying too much stock. He may however, be seeking to make a name for himself, with the idea of working up a good trade connection. Under any of these circumstances he is probably following out a mistaken policy. The urgency of the case may, of course, regulate whether he shall sell at a loss in case he is pressed for money. There may be cases where this is necessary and wise. What we wish to bring out however, is the mistake made by the man who sells "bargains" in lumber with a view to getting a larger trade connection. On the face of it, one might expect this to be a good scheme. But it is a scheme which has been worked out long years ago. It results in a man making for himself a reputation which is far from valuable. When a merchant, or a consumer, is offered lumber at a price lower than what he knows to be the actual market value, his first question is likely to be "what is the matter with it?" He suspects that it is poor stock, or that there will be delay in delivery. He does not form a high opinion of the man who is offering it, no matter how good a reputation the man may have made for himself before hand. The buying public are so well acquainted with the "bargain" argument that, as a general rule, they buy a bargain only under such conditions as render its advertising, or business-making value, to the seller, less than nothing.

The other side of the situation is worth looking into closely. The man who asks a little more for his stock than other men are asking, is likely to give his prospective customer an idea that the stock is worth what he is asking. Good stock sold at a good price always creates a good impression, upon the buyer. It does not take a shrewd business man long to learn that he is getting better value in a high priced article than in a low priced one of poorer quality.

In the lumber trade during the past few years, there has been a greater amount of price cutting than there should have been. Competition has been exceptionally keen, as compared with former years. Over-production and a rapidly falling demand have produced these results and now, with the disorganizing influences of the war upon us, there is danger that the practice of price cutting may go even further than it has ever gone in the past. The actual conditions call for a much different course of action. Reduced production, minute study of market conditions, and a determination to conduct business only upon the soundest possible principles, are of great importance to-day. There is a remarkable amount of business still to be had in spite of the prevailing uncertainty, and if there is one thing that will help the lumber trade more than anything else it is a determination on the part of these who are manufacturing and selling lumber to discourage price cutting and to insist on getting cost and a profit out of their stocks. The views of many well informed lumbermen to-day encourage a belief that it will take only a short time, if such business methods become general, to bring about a really satisfactory state of affairs in the lumber world.

Foreign Trade in Lumber During July

Statistics of imports and exports of forest products by Canada for July and for four months ending with July have been issued by the Department of Trade and Commerce.

Imports of planks and boards free of duty into Canada during July, 1914, from the United States amounted in value to $376,641. For the four months ending July, 1914, the value was $1,381,818. Imports of timber from the United States during the corresponding periods were valued as follows: July, $81,969; four months ending July, $287,588. The imports of pitch pine free of duty from the United States were valued as follows: July, $186,352; four months ending July, $904,661.

Exports of pine deals to Great Britain from Canada during July, 1914, and during the four months ending July were valued as follows: July, $171,635; four months ending July, $409,362. Exports of spruce deals were valued as follows: July, to Great Britain, $818,088, to United States, $112,011; four months ending July, to Great Britain, $1,618,103, to United States, $324,346. Exports of deal ends were valued as follows: July, to Great Britain, $82,666, to United States, $5,065; four months ending July, to Great Britain, $119,900, to United States, $6,791. Exports of laths to the United States were valued as follows: July, $205,798; four months ending July, $576,015.

Exports of planks and boards were valued as follows: July, to Great Britain, $201,582, to United States, $1,733,274, to Argentina, $2,686, to Cuba, $16,059, to other countries, $73,980, total, $2,027,581; for the four months ending July, to Great Britain, $548,299, to United States, $5,571,203, to Australia, $30,118, to Argentina, $113,686, to Cuba, $99,046, to other countries, $194,723, total $6,557,075.

Exports of scantling were valued as follows: July, to the United States, $130,749, to Great Britain, $77,863; four months ending July, to the United States, $362,961, to Great Britain, $133,522.

Canada's exports of wood blocks for pulp to the United States during July, were valued at $845,614, and during the four months ending July, the value was $2,432,495. Exports of chemical pulp to the United States were valued as follows: July, $350,168; four months ending July, $1,320,417. Exports of mechanical wood pulp to the United States were valued as follows: July, $312,918; four months ending July, $798,034. To Great Britain, the exports of mechanical wood pulp were valued as follows: July, $291,950; four months ending July, $397,810.

Statistics which have just been published by the Government at Ottawa state that during the month of August, which was the first month of the European war, Canada's total trade reached an aggregate of $100,874,000, compared with $98,832,000 for the corresponding month of 1913. There has been a falling off in the value of imports, but a healthy expansion is shown in the value of exports. During August, Canada exported manufactured articles to the value of $5,049,000, as against $4,911,000 during August, 1913. For the five months ending August, exports of manufactured articles were valued at $26,728,000, compared with $20,963,000.

During the twelve months ending July, imports of merchandise showed a decline as compared with the twelve months ending July, 1913, to the extent of over $100,000,000, which wiped out the increase made during the previous year, and brought the total down to about $10,500,000, lower than the total for 1912. Exports however, continued to grow during the twelve months ending July, 1914, showing an increase of almost $66,000,000, as compared with an increase of $47,000,000 in 1913 and $46,000,000 in 1912 over the preceding year in each case. An interesting portion of the statement shows that Canada's imports from Germany during the twelve months ending July 31st amount in value to $13,557,621, while our exports to Germany were valued at $4,541,153. The total summary ending with July 31st is as follows:—

Imports—Dutiable goods, $366,858,417; free goods, $196,320,267; total merchandise, $563,178,684; coin and bullion, $14,757,635; total imports, $575,936,319; duty collected, $97,094,410.

Exports—Canadian produce, $431,974,001; foreign produce, $29,841,099; total merchandise, $461,815,100; coin and bullion, $21,614,085; total exports, $483,429,185.

The Reader's Viewpoint on Trade Topics

How Payment of Men is Worked Out in Different Camps—Probable Effect of the War—Preventing Slab Waste

A Practical System of Paying Loggers' Wages

Editor Canada Lumberman: Snow Road, Ont., Sept. 28.

In a recent issue of the Canada Lumberman we noticed an enquiry from one of your readers in regard to the advisability of paying men in the woods only for such days as they are actually at work, giving them only their board upon wet days. For a number of years we have made it a practice to pay our men, either in the bush or at the mills a given wage per day of ten hours, based on their furnishing their own board. If they wish, they can board at our boarding camps, at a given price per meal, actual meals only counted. In this way the men get no free meals when they are not working, either on Sundays or at any other time. If they want to lay off when it rains, or for any other reason, there are no free meals in our system to make it more comfortable for them to be idle, without good reason. We do not hire men by the month on any of our work, not even our foremen. Every man gets day wages for the days or parts of days during which he works only, and pays for the meals he takes at our boarding houses. From an experience since 1885 with this system, we find that it works satisfactorily, and none of our men look for anything different. We pay good day wages for this locality and our men are satisfied.

No doubt if we had paid our men by the month in the past and given them free board and good wages for rainy days, it would be a more difficult thing to change afterwards. The right way in anything is to begin right. For instance, if we proposed to hire men at $35 per month we would pay them say $1.35 per day; if $52 per month, $2 per day; if $39 per month, $1.50 per day and so on. We thus save the cost of their board on Sundays and rainy days, and on any days when they do not feel able or do not wish to work. If they want to lay off for the sake of not working, they are penalized to the extent of their paying for their own board, instead of our putting a premium of the price of their board on their thriftlessness. We have no trouble whatever with this system.

It is our present intention to take out about our usual amount of timber during the coming winter, namely, the amount required to keep our mills running for the full season only. We now have sufficient logs to keep running until our next cut of logs commences to arrive at the mills next spring.

We are inclined to think that the effect of the war, and the consequent feeling of uncertainty, as well as the tightness of money, will tend to decrease the output of logs to a considerable extent during the coming winter. As we expressed ourselves in the Canada Lumberman immediately after the war broke out, we believe in doing all we can to help steady conditions, and to the best of our ability, we propose to give men employment when they need it most. If all employers in Canada would now give employment to labor, as far as possible, it would minimize the present bad effect of the war, and would be rewarded later by the better prices and greater demand that are likely to follow immediately upon the close of the war.

If time permitted, we could refer to the results of the American Civil war, which were first panic, then boom prices and inflation for some years, then a general slowing down, a drop in prices, hard times, then panic once more when at last the final day of settlement came, which in the United States was from 1872 to 1880. We predict that this war will be followed by similar conditions.—The Chandler-Jones Lumber Company.

Pay Men for Working Days Only

Editor Canada Lumberman: October 4.

It has been our custom to pay teamsters and certain men in the woods full time regardless of wet days, but the ordinary bushman is not paid on wet days unless he his hired by the month and with the understanding that he is to receive pay regardless of weather conditions. We do not consider that a lumberman can afford to pay wages when men are laid up through weather conditions. He is doing well if he feeds them during that period.

As to the extent to which we shall log this winter, we have not fully decided as yet. The outlook will govern. The probabilities are that we shall log to a limited extent throughout the winter.—Ontario Manufacturer.

No Pay for Wet Days at this Camp

Editor Canada Lumberman: September 25.

We note an enquiry in a recent issue of your journal regarding the method of paying men in lumber camps. In our camps it has never been customary to pay men working in the woods for wet days, except such men as are taking care of horses or working around the camp, such as blacksmiths, cooks, cookees, etc. Any other men who are laid up in wet weather get their board only. We think this is nothing but fair to all concerned. We, of course, have a rule that if a man wants to work in the rain, he may do so.—Manufacturer.

Payment of Wages for Time Worked Only

Editor Canada Lumberman: October 7.

A letter appeared in the Canada Lumberman recently from a lumber manufacturer who wanted to know what the usual custom was in regard to the payment of men in the woods for rainy days. We do not allow pay for time not worked, but if the time is lost on account of bad weather, we do not make any charge for board.

Our experience was that the men took advantage of payment for wet weather, staying in camp on days when they could have worked without much inconvenience. We have instances of camps not over three or four miles apart, under similar weather conditions, where one camp would be working and the other not, according to the foreman's opinion regarding the weather.

In all lines of work such as railroad contracting, building trades, or similar work, the workman is only paid for the time he works and this is adjusted in wages, which is more satisfactory than having disputes over whether the weather is fit to work in or not.—Mill Manager.

No Work, No Pay at this Company's Camps

Editor Canada Lumberman: October 6.

One of your readers recently asked other lumbermen to report regarding their methods of paying men employed in the bush, referring particularly to the question of payment for wet days or other days when they do not work. It is many years since I have known of a lumber firm paying men for wet days, except perhaps a teamster who has his horses to look after all the time. I know we have not done so, and I do not know of any firm who have done so for many years.

We expect to do about the same amount of logging this winter as we have been doing for the past few years. We would not be doing this if it were not for the blown-down timber in our territory.—North Shore Manufacturer.

Converting Slabs Into Money

Editor Canada Lumberman: North Bangor, N.Y., Oct. 7.

We hear so much about the elimination of waste in connection with lumbering operations that I would like to give your readers a practical illutsration of waste elimination at a sawmill. A short time ago I visited a mill owned by the Santa Clara Lumber Company at Tupper Lake, N.Y. This mill cuts out about 125,000 feet of lumber per day. I only intend to refer to the way they have of utilizing slabs. The slabs are cut into four-foot lengths and are carried along on a conveyor to the rossers. They are then placed on a horizontal table and the bark is removed by a rotary barking machine. After this operation they are placed in a hog or chipper, and reduced to chips. These are then run out on a conveyor and loaded into a car. The chips are sold to a sulphite mill and command $20 per ton. The price of sulphite pulp at the present time is comparatively high.

This mill also rosses circular wood in connection with the sawing of lumber. The burner uses the bark and refuse from the rossers —nothing else. There is a good market for sulphite chips taken from slabs in the way I have mentioned. This company's output is chiefly spruce.—Geo. B. Oberton.

An important lumber manufacturing company in northwestern Ontario reports that its logging operations during the coming winter will be very small, partly because of the war and partly because of general trade conditions. The same company also report that the output of logs in their vicinity, according to their judgment, will not be more than twenty per cent. of normal.

The Ontario's Workmen's Compensation Act, will come into operation on January 1st next. Several meetings of the board have been held and over eighteen thousand manufacturing firms in Ontario will come under the jurisdiction of the Act. Circulars have been sent to all these firms requiring information as to the number of men employed, amount of pay roll, etc., and as soon as this data is at hand the rate for each particular hazard will be struck and the assessments ordered.

The Telephone a Great Aid in the Bush

Logging Operations and Fire Ranging Facilitated—The Riordon Pulp and Paper Company's Installation—Its Construction and Use

By Charles E. Read, Jr.

The Riordon Pulp & Paper Company first considered the idea of building telephones throughout their limits to assist in the work of fire protection, in the spring of the year 1912. We had heard that the River Ouelle Pulp & Paper Company, of St. Pacome, P.Q., had built and were operating bush telephones with great success and we wrote them for information. They very kindly volunteered their assistance and offered to show a representative of the Riordon company around their lines. Advantage was at once taken of this offer and the company sent their forester to visit St. Pacome, where he secured a great deal of valuable data which governed the initial construction that summer.

When we built our first line we thought only of fire protection and not at all of assisting in our bush operations. In consequence, the first line extended up the slope of Trembling Mountain from the last "Bell" telephone at the foot to our lookout on the peak. This line through a connection with the "Bell" gave us a direct line between our St. Jovite office (head office for the wood supply department) and our lookout man stationed on this commanding point, over 3,000 feet above sea level and 2,000 feet above the surrounding country.

This line was the most difficult of all to build, for much of the distance was over bare rock from which all vegetation had been swept by successive fires. As there were no trees on this fire-swept rock, and as it was impossible in many places to sink post holes, it was necessary to put in rock bolts, which extended well above the surface of the stone, to hold the insulators through which the wire was run. The method employed was the single wire or ground return and it was connected with the "Bell" line through a repeating coil.

Bush Operations Facilitated

This line worked successfully and before the next line was started, the possibilities of the telephone as an assistance in bush operations were recognized. In consequence the intended course of this second line was slightly changed so as to make it of more use in the conduct of our shanties and drives.

Our new line was built on the two-wire or metallic system and was hung from trees, poles being used only where trees were not available. We were also able to connect this line with the local "Bell" service. When these lines were completed and in constant operation, they were found to be so useful to both the work of fire protection and of wood supply than an extensive programme of building was prepared and immediately gone ahead with.

These new plans were designed to be useful, so far as possible, for our woods operations, but in no case was the primary object of fire protection overlooked. The first of these new lines followed up the main Rouge River, from the end of the "Bell" service, keeping mostly to the portage road, as this made it much easier to patrol the line in case of breakdowns. Spurs were run into all the company camps, and where a big jobber was on or near the line, a box was put into his shanty free of charge. The line was run on above our last camp to the main storage dams at the head of the river. This last spring, when water was so scarce and driving so difficult, we were saved many hours of water-flow from these storages by the use of the telephone. Formerly it had taken from eight to sixteen hours for a man to walk from the head of the drive to the dams with orders for the opening and closing. With the telephone this was done by the foreman himself in fewer minutes.

As the gangs come down the river they bring their phones with them, connecting up with the line wherever they camp. In this way, orders can always be given to a gang on the shortest possible time and reports received of their progress at all times.

We also built lines up our two chief branch rivers and last winter each company camp was a long distance station. There was one exception to this as one of our lines only went to the St. Jovite office and did not connect with the "Bell."

The Cost of Construction

We have found the cost of building a two-wire or metallic line to average about $90 per mile where we have been able to support the line from trees. If, however, it is along a road in open country and it is necessary to erect poles, the cost is materially increased. For this style of line we use a No. 12 b.w.g. galvanized iron wire which comes in half mile coils and weighs 165 pounds to the mile. Oak side brackets and glass insulators to the number of thirty or forty per mile are used for support.

A much less expensive line, both in first cost and maintenance, is the one-wire or ground return system. This can be built for about $55 per mile and for it a No. 9 b.w.g. wire, in half mile rolls, which weighs 305 pounds per mile, is used. To support this line we use a No. 18 7-strand soft seizing wire which holds a split ring insulator (Thomas No. 22) through which the wire passes. As this insulator only supports the wire and does not prevent a longitudinal slip it is necessary to use an oak bracket and glass insulator several times in each line. The wire is actually held by the seizing strand to this glass insulator.

After experiment with a number of telephone sets we decided upon the Northern Electric No. 1317P set and with this we used the No. 60-B protector manufactured by the same company. In one case where several hundred feet of wire was destroyed by heavy electric currents from lightning striking the line, this protector arrested the current before it could damage our telephone set. I do not think that anything more need be said as to the advantages of this protector. The cost of a telephone set with the material for its installation is about fifteen or sixteen dollars.

Our costs of construction have divided themselves up about as follows:—

	Per cent.
Materials	22
Labor	45
Provisions	23
Teaming	10

Fire Prevention Saves Construction Cost

The whole amount expended on our lines might easily be saved, and I feel sure it has been, by getting men to one fire in time to place it under control. As a matter of fact this last summer, when fires and fire danger were at their height, the telephones proved their value over and over again by enabling us to send assistance to a ranger in the shortest possible time. The rangers all carry small portable sets and they are able to connect this to the line at any point. Except in the back parts of the limit, it is seldom that a ranger is over five miles in a direct line from the wire.

The assistance rendered by the telephone in the operation of a large number of camps and drives by one central head is really remarkable. All parts of the work are constantly in touch with the manager and with each other. In place of a man walking or driving miles with the manager's instructions for a foreman, the manager or agent can call the foreman to the wire and then, after hearing the facts of the case from this man, can issue his orders direct.

The writer feels sure that, if any firms are desirous of more detailed information in regard to costs, methods, etc., the Riordon Company will be only too glad to put at their disposal any information which their woods department has collected.

Match Wood Wanted in South Africa

The Canadian Trade Commissioner at Cape Town, South Africa, in a recent report says:—"In Weekly Report No. 517, attention was brought to the demand here for the Aspen Log, and although some correspondence has resulted, so far nothing practical has come about. The present conditions in Europe are such that the regular supply will probably not come forward to South Africa. This therefore would be an opportune time to secure a contract with the match manufacturers here at even better prices than were quoted last year, namely, 18 cents a cubic foot, f.o.b. Montreal or St. John. The amount required is not less than 6,000 tons of 40 cubic feet. The logs must not be less than 9 inches diameter up to 20 inches and must be as clear of knots as possible. The wood should arrive here in a moist condition so the bark must remain on the logs and the ends of the logs painted. If any of our lumber dealers are prepared to supply, it is requested that they cable quotations at once. If conditions will permit of code cables, the address 'Nautimus,' Cope Town, should be used, otherwise the cables should be addressed to this office."

The Cut of Lumber in the Southern States

Notwithstanding the general tendency to a diminution in the cut of lumber in the United States, the high mark having been reached in 1909, when the output was 44,585,000,000 feet, the South continues to increase its proportion of the total. Last year it cut 21,532,683,000 feet, or 56.1 per cent. of the total cut of 38,387,009,000 feet in the United States. There was a decrease in the 1913 cut from that of 1912 of 74,836,000 feet in the South and of 696,669,000 feet in the rest of the country.

Ontario's New Prime Minister

Hon. W. H. Hearst.

The appointment of Hon. Wm. Howard Hearst, Minister of Lands, Forests and Mines for the province of Ontario as the new premier to succeed the late Sir James Whitney, is an event of much importance to the lumbering industry in Ontario. Mr. Hearst is pre-eminently a representative of Northern Ontario, and as such, has given great attention to the numerous problems developing out of the management of the forest resources of the province. He will continue at the head of the Department of Lands, Forests and Mines for a time at least, in addition to performing his new duties as premier.

Hon. Mr. Hearst is a man of pioneer stock who was brought up on a farm in the County of Bruce, and has inherited an appreciation of the difficulties of pioneer life. He was born in the township of Arran, Bruce County, on February 15th, 1864, and was educated at the Collegiate Institute, Collingwood, and the University of Toronto. He is also an honor graduate in law of Osgoode Hall. He was admitted to the bar in 1888 and is now the senior member of the law firm of Hearst, Rowland and Brown. He has practised his profession successfully at Sault Ste. Marie, Ont., for 25 years.

Upon the formation of the Whitney Government, Mr. Hearst's ability was recognized by his appointment as government agent in connection with the guarantee loan to the Lake Superior Corporation. Being a lawyer, and having had the advantage of a large practice in a lumbering and mining constituency, he is equipped with an intimate knowledge of the affairs upon which a minister of Lands, Forests and Mines is frequently called to decide.

Securing industries for the north country, so as to provide employment and a market for whatever the settler may raise, as well as the timber he has to sell, has been one of the new premier's important duties, which he has carried out with encouraging success. The Hon. Mr. Hearst is in the prime of life, being under 50 years of age and is able to devote to his new position and his former one all the enthusiasm and vigor of a young man whose heart is in his work.

In his first message to the people of Ontario, recently published, the new premier declared that it will be the aim, object and determination of the new government to carry out the traditions of the government which it has succeeded. A province blessed with limitless resources of field and forest, of mine and river, of lake and waterfall, and people of such a splendid type of manhood and womanhood as ours, constantly requires new measures and new laws for the development of its resources, and the comfort and happiness of its people. The new government would strive to meet these requirements to the full and would not hesitate to break new ground when the needs of the province required it. The work of developing the great heritage of the province of Northern Ontario would proceed with added zeal and energy.

Unable To Change Her Registry

The steamship Robert Dollar has sailed from Rio Janeiro for New York under her old British registry. The vessel, in command of Capt. Morton, sailed from Vancouver, B.C., June 25, with 4,485,666 feet of lumber, to be delivered either at New London, Conn. or at Montreal, for reshipment to Toronto. At Rio Janeiro her owners sought to avail themselves of the new shipping registration of the United States. There was difficulty regarding the transfer and the British government objected to the proceeding. Word was subsequently received by the state department at Washington that the vessel had sailed from Rio Janeiro under the British flag, her owners abandoning their efforts to transfer the vessel to American registry.

B.C. Log Production Increasing

Considerable increase is reported from the British Columbia log-scaling department for the month of September, the figures being 66,500,906 ft., as compared with 66,300,421 ft. for the month of August of this year, and 61,926,946 ft. for September of last year. Mr. G. D. McKay, government timber inspector, says that observations made during his recent trip along the north coast led him to predict a long period of activity for the industry.

Personal News of Interest to the Trade

Thomas E. Fee and Company, wholesale lumber, have opened an office at 411 Drummond Building, Montreal.

J. G. Robson, manager of the Timberland Lumber Company, New Westminster, intends to make an extended trip through eastern cities in the near future. Mr. Robson is Vicegerent Snark of Hoo-Hoo in British Columbia.

Hon. L. J. Allard, Minister of Lands and Forests, and Hon. J. E. Caron, Minister of Agriculture, in the Quebec Government, have just returned from a tour of the Abittibi region, Mr. G. C. Piche, of the Forestry Service, accompanied the Ministers.

Mr. J. B. White, manager of the woods department and sawmills of the Riordon Pulp and Paper Company, has been appointed a member of the Forestry Committee of the American National Wholesale Lumber Dealers' Association for the ensuing year. The other Canadian member appointed to this committee is Mr. John S. Gillies, of the Gillies Lumber Company, of Braeside, Ont.

Among the largest contributors to the fund being raised for the relief of distress in Belgium are Mr. H. Biermans, of the Belgo-Canadian Pulp and Paper Company, Shawinigan Falls, P.Q., the forestry service and also the employees and workmen of the same company. The Laurentide Pulp and Paper Company gave $1,000, and Wm. Rutherford & Sons Company and their employees $1,000, to the Canadian National Patriotic Fund.

C. M. Carrier, a well known United States hardwood manufacturer, who has important interests in the lumber manufacturing business in Eastern Canada, recently made a visit to the eastern provinces. He predicts that lumber business during the coming winter will be quiet in general, but says that a number of lumber companies in Quebec and the east are increasing their holdings extensively and preparing to get out a full cut of logs.

News From Toronto Forest School

Some 20 new students have been registered in the first year of the Faculty of Forestry, at the University of Toronto, making a total of around 50 students. The two upper year classes are, for the first four weeks, in camp No. 23 of Graves, Bigwood & Company, north of Nairn, Ont., for practice work, under the direction of Professors Millar and Howe. During this time timber estimating, tree measurements, studies of rate of growth, forest description and forest survey, marking out for thinnings and for natural reproduction, planting, the making of working plans, and other practical woods work will occupy the students.

Mr. W. N. Millar replaces Mr. A. H. D. Ross upon the Faculty of Forestry. He has been for two years in the Dominion Forestry Branch as a District Inspector of the forest reserves in Alberta, after considerable experience in the U. S. Forest Service. His subjects are the practical ones of most interest to lumbermen, namely, measuring and estimating timber, logging methods, mill practice, and all forest engineering matters, such as road, dam, and trail building and organizing forest fire service.

Changes in the Arkansas Soft Pine Family

Two important changes of position among the members of the Arkansas soft pine family have been announced. One of the members concerned is Mr. C. E. Tredick, who began his lumber life with the Edgar Lumber Company, of Wesson, Ark. His connection with that company covered a period of nine years, to the satisfaction of all concerned. During the latter portion of this time he served as sales agent for the company. The other member concerned is Mr. S. A. Williams, formerly one of the members of the sales force of the Fordyce Lumber Company, Fordyce, Ark., a position which he held for several years. Leaving that company about a year ago he became sales manager of the Arkansas Lumber Company of Warren, Ark.

All three of the companies mentioned are manufacturers and distributors of Arkansas soft pine, and Mr. Tredick and Mr. Williams have been active forces in the sale of the product and the spreading of knowledge of its value. The capacity of the Edgar Lumber Company is 100,000 feet per day and that of the Arkansas Lumber Company, 165,000 per day.

The Arkansas Lumber Company recently required an assistant or resident manager and Mr. Tredick was naturally selected as a man who possessed the desired requirements. He assumed the duties of his new office, including the supervision of sales, early in September.

Mr. S. A. Williams took over the sales work for the Edgar Lumber Company. Both Messrs. Tredick and Williams have established records of faithful service for the companies with which they have been identified. In future, buyers of "Wesson" Arkansas soft pine will correspond with Mr. Williams, and buyers of "Warren" Arkansas soft pine will correspond with Mr. Tredick.

Japan Offers Market for Canadian Pulp

The Canadian Trade Commissioner at Yokohama, Japan, in a recent report says:—"Canadian pulp manufacturers have now an opportunity to do a profitable business with Japan. In Weekly Report No. 537 it will be seen that Germany and Sweden have nearly the whole of the export trade in pulp to Japan amounting to $1,850,000 out of a total trade of $2,100,000. As a result of the war, exports from Germany have entirely ceased, and those from Sweden are bound to suffffer. In consequence, the price in Japan has gone up by 20 per cent. for pulp of a medium quality and will probably go higher. No doubt a large part of this increase will be eaten up in increased freight charges and war risks, but it is a good opportunity for Canadian pulp manufacturers to get a foothold in this market. Pulp of a medium quality was quoted before the war at 8 sen (4 cents) per pound. The duty is $1.67 a ton. The largest importers are the Mitsui Bussan Kaisha, 1 Suruga-cho, Nihonbashi-ku Tokyo.

"The manager of one of the largest American importing houses in Japan states that there is such a shortage of sulphite pulp in this country owing to shipments from Scandinavia via Hamburg having entirely ceased, owing to the war, that price is hardly a factor, and the only question is one of supply. This firm sold last week a large quantity of very poor American pulp ('almost black,' he said) at 50 per cent. above normal prices, and can dispose of any quantity of Canadian pulp offering, at high prices, throughout the war. Nearly the whole of the imports of pulp into Japan have been Scandinavian in origin, shipped in German bottoms via Hamburg, so that the normal source of supply is entirely cut off.

Opportunity for Canadian Mills

"Possibly there is also a shortage of Scandinavian pulp in the United States, with high prices, so that Canadian producers may not care to consider such a distant market as Japan, but it should be noted that any quantity the Canadian mills can produce, can be disposed of here at high prices.

"To save time manufacturers should communicate with the Vancouver office of Mitsui & Company, a powerful firm which handles 22 per cent. of the whole foreign trade of Japan, or with the San Francisco office of the American Trading Company, a firm of good standing with branches throughout the world. Both of these branch offices are being advised by their Japanese offices of probable offerings of Canadian pulp. The demand is for 'Easy-bleaching Sulphite,' and the American Trading Company are offering about $40 per long ton f.o.b. port of shipment. As almost any price asked for is being obtained by the importers, higher prices than this can doubtless be obtained if demanded.

"Shipments can be made via Vancouver, as two ships out of the five trans-Pacific C. P. R. line are still running, the other three having been chartered by the British Government. Or shipments can be made via Seattle or Tacoma, on American and Japanese lines."

Lumber and Pulp Opportunities in Great Britain

The weekly report of the Department of Trade and Commerce, dealing with the timber trade situation in Great Britain developing out of the war says:—"Although the lumber trade should be affected in due course, it would appear that such inquiries as are being made are largely in the direction of precaution. The outbreak of hostilities found the United Kingdom carrying large stocks of timber of most kinds, and also of turnery and woodenware, and as long as the North Sea is kept open, considerable supplies will be available. It is pointed out that there should be an exceptional opportunity for birch, oak, and other ply woods, and several inquiries have been received for broom and tool handles.

"In view of the public statements made as to threatened shortage of newspaper, opportunity was taken to consult probably the largest importer of wood pulp in this country. This authority considers that Canada may be encouraged to look for a good demand for wood pulp generally, although the chief requirement of this country is for sulphite in preference to mechanical.

"In spite of the certainty that Canadian manufacturers are thoroughly posted on all aspects of the trade, it may not be out of place to repeat that leading authorities have long urged the advantage which must result from Canada devoting greater attention to the production of sulphite pulp, and the present turn of events emphasizes this desirability. Sulphite pulp is almost always in demand at profitable prices, whereas there are constant fluctuations in the mechanical variety. It will be noticed from the official trade figures that in 1913 the total importation of chemical pulp of all kinds into the United Kingdom amounted to 411,803 tons, the bulk of which was supplied by Sweden (254,097 tons), other considerable contributors being Russia, 41,000 tons, Norway about 60,000 tons, and Germany 40,000; Canada's share being practically nil. There is already a shortage of sulphite in the United States, and if Sweden should become involved in the area of war, there would be danger of a general famine of sulphite.

"As regards mechanical, Norway is the chief source of supply, contributing a quantity of 311,951 tons out of a total import in 1913 of 565,954 tons. While Sweden is also an important supplier (about 128,000 tons), Canada shipped as much as 69,000 tons and Newfoundland 50,659 tons. The higher freights and unavoidable difficulties of transportation through the North Sea during the period of hostilities should make conditions for Canadian pulp easier."

Quebec's Lumber Trade with the United States

The United States Daily Consular and Trade Reports in a recent issue contain the following reference to the lumber trade of the province of Quebec with the United States during the year 1913:—Lumber exports from Quebec Province to the United States last year were but slightly in excess of those in 1912, which was unquestionably due to the greater home demand for lumber for the extensive building operations and construction work and to the shrinkage of lumber production. The year 1913 has been called the lumber manufacturers' year in Quebec, so far as profits are concerned. Strong advances in prices occurred during the fall and winter of 1912-13, and as a result manufacturers took advantage of this when selling their 1913 cut in the early part of that period. On account of the light stocks on hand and the good demand, business was profitable during the first five or six months, especially in spruce, hemlock, and the lower grades of white pine, although good pine and square timber declined in value. About midsummer there was a falling off in sales, tight money being an important factor in that connection. Dullness characterized the remainder of the year. Hemlock and spruce dealers also began to feel the keen competition of yellow pine, which was dumped in large quantities and at very low prices in Ontario, Quebec, and New Brunswick. In spite of this decline, however, quotations for spruce, hemlock, and the lower grades of white pine held up well, which was accounted for by the heavy shrinkage in the output of the lumber referred to in Quebec, Ontario, and the lower provinces. It is estimated that there was a decrease of 200,000,000 feet of spruce compared with the output of 1912. There was also less hemlock manufactured than in the preceding year.

During 1913 the Province of Quebec imported from the United States lumber and timber to the value of $777,757, as compared with $371,260 in the year 1912.

The U.S. Banking Situation

The criticism directed against Canadian banks for their attitude towards business since the outbreak of the war, is not unlike that which has been directed against the banks of the United States. Vigorous measures have been taken in that country by Mr. McAdoo, Secretary of the Treasury, to bring the banks to a realization of their duty. Being convinced that the banks were withholding legitimate credits and charging excessive rates of interest he telegraphed recently to the ten national banks in the four reserve cities in the South that their request for additional crop moving funds from the government would not be granted at this time, and made it clear that his action was taken in consequence of reports of excessive interest rates and restriction of credits. Mr. McAdoo emphatically criticized the withholding of money which was revealed in the reports of the comptroller of the currency, and stated definitely and emphatically that the policy was contrary to public interests, was indefensible from any point of view, and was not inspired by any necessity or any occasion whatever. As a remedy he stated he would begin issuing a daily list of banks which were hoarding money by maintaining excessive reserves, in order that the country might know how they were performing their public duties. What this means is too plain to require explanation. The secretary urged that such action on the part of the bankers not only hurt legitimate business, but tended to impair confidence and to injure business generally. He urged that if all the banks of the country would do their duty under present conditions in extending legitimate credits, at reasonable rates of interest, the most serious difficulties would most promptly disappear. This last statement is of much significance as it clearly shows the condition as expressed in the opinion of a man who is in an exceptional position to know what he is talking about.

An Unparalled Opportunity to Make Canada Prosperous

"Wake up, Canada!" is the title of a practical little book issued by the Board of Trade of the city of Toronto, which is being distributed very widely. The book is issued in the hope that every Canadian who reads it will agree that there exists today an unparalleled opportunity to make and keep Canada prosperous. A brief introduction precedes a list of articles imported into Canada during the fiscal year ending March 31st, 1914, and the list shows that they amounted in value to the following totals: From Germany $14,686.069, from Austria $1,787,473, from other countries $601,855,332. The introduction to the book is a forcible appeal to Canadians to purchase Canadian goods whenever possible.

The Value of Saw Mill Refuse as Fuel

Pulp and Paper Mills Within Reasonable Distance of Saw Mills Can Use Wood Waste Profitably—A Question of Oven Design

By G. B. Steffanson*

Many a saw mill owner regrets that he has to stand the cost of conveying wood refuse, which cannot by any means be disposed of for the raising of necessary power for the saw mill, to a place where it can conveniently be burnt or otherwise destroyed.

He, however seldom realizes that the refuse has a commercial value as fuel for steam raising, if his saw mill is located in a reasonable distance, from a place or places where power is used and cheap water power or a local natural resource of fuel is not available.

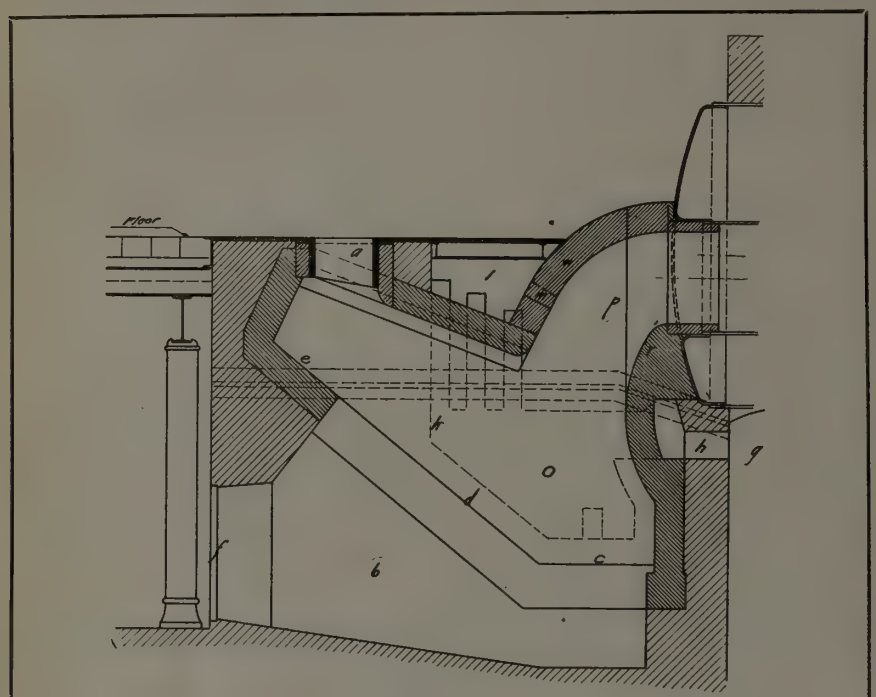


Fig. 1.

Hundreds of power plants throughout the Dominion use imported coal for fuel, though in the vicinity an abundance of wood waste is destroyed.

The average saw mill refuse has not a large value as fuel, if weight and bulk are taken into consideration, if rightly handled it can, however, be shipped both by water and by rail for a considerable distance to the advantage of the seller as well as of the consumer.

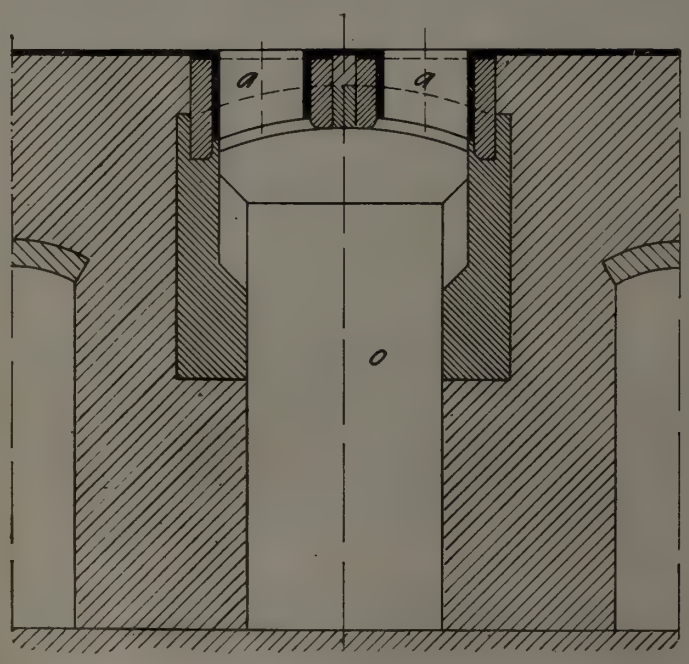


Fig. 2.

Here the Railway Commissioners as well as the railway companies could help the industry in general by granting low local rates, this would soon add to the tonnage, and even if not giving a direct income, would bring down the railroad's local tonnage cost, and thus give an indirect income to the railway companies. Suitable cars would, however, have to be provided.

The sawdust is usually more than sufficient for the raising of the power, necessary in the sawmill using ordinary Dutch ovens. By using more efficient ovens much more than the necessary power could be raised for sale or some of the sawdust could be sold to other steam raisers.

Pulp and paper mills are, as a rule, located near saw mills, as they both have the same source for the supply of their main raw material; still, if the two mills do not belong to the same concern, it usually so happens that the saw mill goes on destroying its wood refuse, and the pulp and paper mill buys imported and expensive coal for fuel.

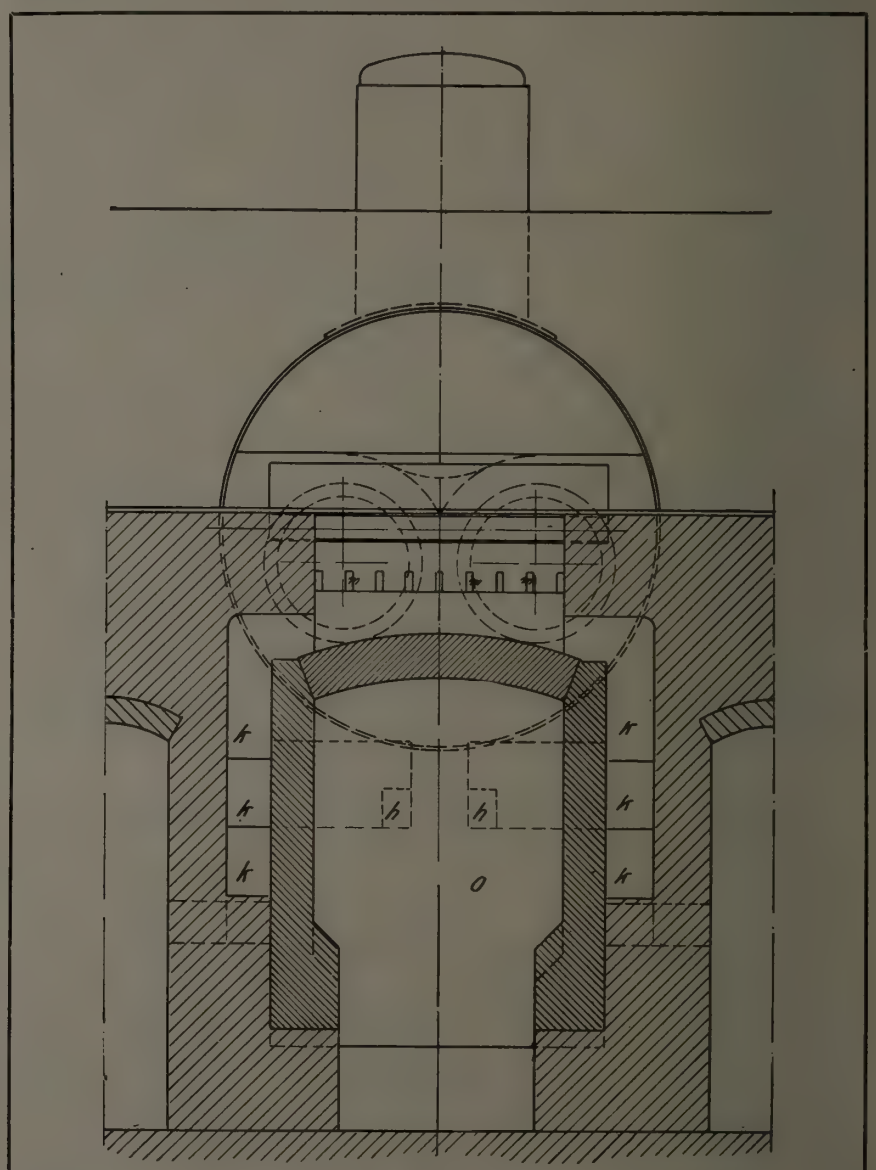


Fig. 3.

THE VALUE OF SAW MILL REFUSE AS A FUEL FOR STEAM RAISING IS NOT FULLY REALIZED AMONGST PULP AND PAPER MANUFACTURERS.

One of the main reasons for this is, that only in recent years, ovens have been designed, which in an economical way utilize even low grade saw mill refuse, without being too expensive in first cost and in upkeep.

Ovens have been designed along many different lines, gas generating, stoker arrangements for direct firing under the boiler, and so on, and more or less fancy designs of Dutch ovens have been tried.

The best oven as yet designed for the utilization of this kind of fuel is undoubtedly the Half-Gas Furnace.

This furnace or oven is not very cheap in first cost, and it takes

* Reproduced by courtesy of The Puly & Paper Magazine.

some experience even for a bricklayer, competent on fire brick work, to build it.

This is undoubtedly one of the main reasons why this kind of oven has not quickly found its way throughout the parts of the world where saw mill refuse is available.

Ovens of this kind will be burned out in two or three months if built by an incompetent brick layer, and of inferior material, whereas an oven built right and of the right kind of material and properly looked after, should stand for eighteen months to two years, going night and day.

Only high grade fine-grained fire brick, true in angle and with sharp corners should be used, and for the arches bricks of the right shape are most essential.

The bricks should before setting be ground well together, in order to get a tight fit. A thin mortar of equal parts of unburnt fire clay, and burnt crushed fire brick or quartz sand all well sifted, should be used. An even, thin layer of the mortar should be evenly spread over the joint surface of the brick, and this worked down in its place as close as possible to get the smallest possible joints. This is a very essential thing, as the temperature is very high, especially in the upper part of a half-gas oven and the heat eats out a wide joint much quicker than it burns good fire brick, thus exposing two sides of the brick to the fire.

Fig. 1 shows a longitudinal cut elevation of a half gas oven, attached to a Lancashire boiler of 1,000 sq. ft., heating surface (100 h.p.). Fig. 2 shows a cross-cut elevation at the feed holes, and Fig. 3 shows a cross-cut elevation in the middle of the oven. Mark the difference between the width of the fuel room and the width of the grates. (Figs. 2 and 3.)

The fuel is admitted through the two feed holes (a). These holes should be well covered over by fuel or by lids, in order not to admit an excess of air this way. The grates are built as ordinary coal grates or as step or extension grates, this latter especially where sawdust is burnt as well, and in order not to allow any of the fuel to escape to the ash pit unburnt.

The grates should be kept well covered with fuel in the lower part of the oven and to accomplish this the upper part should at all times be kept full of fuel. The horizontal ash grate (c) is especially liable to lay bare, if the fuel is not poked down from time to time. The inclination of the grates could be made larger, in order to have the fuel to fall down and cover this harizontal grate without any extra work, this, however, makes it more difficult to remove the ashes from this grate, where they mostly collect. This ash grate should preferably be of the swivel type and so arranged that it can be operated from outside the oven.

The prolongation (e) of the grates serves to receive the fuel and by this arrangement a considerable quantity of fuel not on fire, will prevent an excess of air from entering the furnace, even if the lid is off.

The ash pit door (f) is provided with small dampers regulated from the main floor, and large enough to admit sufficient air for a partial combustion, or rather for the forming of combustionable gases.

A canal (g) is provided for behind the furnace and under the front part of the boiler to accommodate blowout pipes. From this large canal two secondary air canals (h) one on each side of the furnace, lead to both the canals (k), from these to the room (l) above the furnace chamber and through the holes (m) in the arch (n). The air is heated when passing the canals (k) and in the room (l).

The combustible gases from the furnace (o) pass up through the canal (p) where they are thoroughly mixed with the hot secondary air coming through the holes (m). Complete combustion therefore takes place just before the gases enter the fire tubes, thus giving most of its initial heat to the front part of the fire tubes, not to the brick work outside, nor to the inner end of the fire tube, which latter means a considerable lowering of the capacity of the boiler.

When lining the furnace with fire brick, binders extending from this into the brick work behind, should be provided for at canals (k). This in order to prevent the fire brick lining from falling out when it is burnt thin. It may take only a few weeks to burn out half of the thickness of the lining, but the nearer the fire gets to the cooled outer side of the lining, the longer time it will take to burn the lining away, and a thin film of lining may resist the action of fire for many months if it is properly stayed so that it canot be pressed out by the light pressure of the fuel.

The fire bridge at (r) is very much exposed to the fire and in order to prolong its life it is wise to provide same with a canal through which air circulates.

Experiments have shown that the grate area should be about one one-hundredth of the heating surface in a plant where the draught is about one and one-quarter inches of water at the bottom of the chimney and an economiser is installed and consequently the draught at the gas inlet to the boiler is about one-half inch of water.

A larger grate area proved to combust too much of the fuel instead of transforming it into combustible gases, if the boiler was not pressed very hard, when a large loss of heat in the fuel gas occurred. A smaller grate area lowered the capacity of the boiler considerably under normal working capacity.

The grate area should, for plants of above description, but without economisers, be from 15 to 20 per cent. smaller, not to let the gases escape from the boiler at too high a temperature.

In boiler plants where the draught is low, considerably larger grate area has to be provided for, and the furnace so built that the fuel does not resist the direct air too much. The secondary air canals should not be too long, and all corners should be well rounded so as not to prevent a sufficient quantity of air from passing through.

Minute air regulation arrangements should be provided for in order to get the right composition of the combustible gases and not too high percentage of surplus hot air admited into the combustion chamber.

The arch (s) should be provided with peep holes through which the combustible gases and the combustion can be watched. The fireman will soon be able to judge from the color of the flame, how to regulate the different air inlets, especially if he has a combustion recorder to aid him.

Also ordinary Dutch ovens can conveniently be rebuilt to half-gas ovens, care should, however, be taken that the design is such that the secondary air is thoroughly mixed with the combustible gases.

The following tests were made on the furnace described above, and they do to some extent indicate the value of different kinds of refuse as fuel.

Test No.	1	2	3	4
Duration of test hours	4	4	4	4
Quality of fuel (see below)	1a	2a	3a	4a
Quantity of fuel lbs.	6,406	5,496	11,717	18,315
Evaporated during test: lbs. of water	28,263	14,929	28,354	22,037
Pressure aver. during test: lbs. per sq. in.	93,1	90,6	94,2	90,4
Feed water from economiser	231	228	244	274
Evaporation per sq. ft. heating surface	6,9	3,6	6,9	5,4
Lbs. of steam per lbs. of fuel, from 32 degrees F. water to steam of boiler pressure	3,67	2,27	1,99	0,95

Quality of Fuel

1a.—Refuse from wood room and planing mill 74.6 per cent. bone dry.

2a.—Sawdust 45.5 per cent. dry.

3a.—Cut up edgings and slabs stored for 6 months, 69.2 per cent. bone dry.

4a.—Cut up edgings and slabs sawed in winter time and with ice on, 41.9 per cent. bone dry.

Close Utilization of Stumpage

In a recent statement, Prof. R. C. Bryant, of the Lumbering Department of the Yale Forest School, shows that the extent to which close utilization of stumpage can be effected is dependent directly on the markets and the prices which can be secured for the low-grade material, which comprises more than fifty per cent. of the lumber cut. The lumberman removes from the forest only as much of the stand as he believes can be marketed at a profit, although every defective log may contain some cull material which must be handled in order to secure the higher grade lumber on which a profit can be made. The past few years have seen a marked change in the character and amount of timber which is taken from a given acre of land. Where formerly only the choicest trees and the best logs from these same trees were taken, lumbermen have now rached a point, due to higher stumpage values and increased market prices for lumber, where, in some sections the entire stand is removed, down to a diameter of from 12 to 14 inches, in some cases still lower; also where low stumps are cut and where defective and knotty top logs are taken to the mill. The yield per acre for stands of the same character has increased from 400 to 500 per cent. for the above reasons.

From the above, it will be seen that a comparison of the cut from a tract of land 20 years ago with the cut from the same tract to-day does not necessarily furnish any index to the amount of growth which has taken place during that time. This is due to the lower diameter limit in use, and the much closer degree of utilization. Unless full allowance is made for these factors a land owner is likely to conclude, from a comparison of cuts, that the rate of timber production on his land is much greater than is really the case. As a matter of fact, tree growth must be measured; it cannot be estimated. This is one of the tasks for which a forester is trained. It is beyond the scope of the timber cruiser.—Conservation.

"Going After" Business the Only Solution

By A. A. Briggs*

[Editorial Note—In view of the fact that the Dunlop Tire & Rubber Goods Co., Limited, have decided to increase their advertising appropriation at the present time, this summary of conditions which influence national advertisers in making such a decision, will undoubtedly be read with great interest].

Retrench—"To lessen, to abridge, to curtail"—that's what the dictionary especially calls it.

But hasn't the war so far shown that to retrench means particularly to **dig out a fresh trench,** to secure the means and the assistance to make a new assault on the enemy? In the latter interpretation we undoubtedly find what ought to be the keynote for the present advertising situation in Canada.

The truth is that on one side of the Dominion are ranged people who are following the dictionary's main stipulation of "retrench" for their publicity guidance. They may have reasons for so doing which no one in a different line of production can justly pass an opinion on; but it is also true that on the other side are ranged people who are leading—not following anything or anybody in their advertising policy which does not at once spell **Action.** It cannot be denied that the people who have decided "to lessen, to abridge, to curtail" their publicity are in the ascendency at the present time. And everywhere the reason advanced is: "The War."

So far, from the standpoint of salesmanship, **no one has adduced a solitary economic reason why Canadian manufacturers who inaugurate advertising campaigns as a regular portion of their selling effort should discontinue that programme at the present time.** And, is it not strange that in all our mental hurrying to and fro, no one has yet proclaimed the fact that the war did not alter the Canadian consumer-purchasing market one iota? It must be understood that in making the above statement we are not dealing with any isolated cases where this particular business or that particular business may have been affected in countless ways other than the selling end. It is true, a manufacturer may have to pay more for his raw materials as one result of the war, but if he can get the materials at all, he always has the instrument of retail price-increase to wield in offsetting his losses, if necessary.

What really did alter the possibilities of the consumer purchasing field in Canada? Not the war, but the lull that antedated the war. A number of reasons precipitated the lull—most of which the public are conversant with. In other words, dull times, if one chooses to call them such, were here anyway—here in the sense that while the consumer was willing to a considerable extent to make purchases, the middleman had in many cases gone rather askew in his financing. The war simply accentuated the fast-spreading inclination to sit tight.

Naturally, during a portion of 1913 and most of 1914, manufacturers, in the main, were conservative in the matter of building extensions and such like, and sales efforts were always linked to due caution. This year, probably more than usual, attention was centred on the outcome of the Western wheat crop. That crop virutally has arrived, and, if reports are true, it is a good deal larger than advance estimates intimated. Then, notice the price per bushel paid for some wheat at the elevators. The farmers should now assist basic money circulation, which, of course, always commences the upward trend in the retail line.

In seeking our forces for advertising stimulus, it is one thing to deal with the possibilities of new fields of endeavor for Canadian manufacturers and another thing to explain away the measure of uncertainties attached to them. It cannot be gainsayed that consideration of new fields may mean consideration of bonuses and tariffs. What ought to be emphasized is that the Canadian manufacturer has, at least, as much area market as he had previous to the war and the general lull in consumer-buying conditions. Therefore, instead of risking new fields, which at best may be a costly experiment, the natural course seems to be that of again seeking the old field—**but seeking it ten times more forcibly.** This fact is brought home to us with double force when we have evidence aplenty that our friends to the South, in the widespread revival of the export propaganda, are considering the commercial blanketing of this country. It, therefore, behooves the Canadian manufacturer who has advertised in the past, not only to advertise again to create consumer demand for his wares, but to advertise as a means of actually holding what he already has. While suggestions are being made to flank some of the European countries' export business to Canada, we should not allow ourselves to be flanked in a commercial sense by our neighbors across the line.

Those advertising men who passed through the trade siege of 1907 and others before it—which sieges or lulls, or whatever you wish to call them, some bankers say cast their sly glances our way approximately every seven years—know well that **the manufacturers who assumed the defensive in publicity matters on those occasions had a difficult time regaining their stride when normal times returned.** That is natural law in the commercial world. There is no profit in manufacturing, no excuse for a factory's existence, unless the selling end is vigorous. The energy which keeps the selling end vigorous in abnormal times is identically the same energy which keeps it vigorous in normal times—only it is in abnormal times that keeping up the stride is fraught with more discouragements. One hundred courageous manufacturers and five hundred patriotic purchasing agents are worth more to Canada at the present moment than a million sermons or editorials on humaneness in war.

Realizing that one of the big sticks in the commencement of Canada's Comeback is to be wielded by the purchasing agent, every man occupying such a position in Canada, should have a creed something to this effect hung over his desk where he who runs in for an order may read:—

"I have hitched the firm's wagon to the Made-in-Canada star.

"I will specify on all purchases that Canadian materials must be used or the order will be subject to cancellation.

"I know in so doing that I will thereby be encouraging the other fellow—whose traveller calls on me—to buy my firm's goods and possibly at a higher price, too, than he would have to pay for the foreign article."

Let us be assured that Canadian purchasing agents as a body have lined up behind the Made-in-Canada slogan, and we can expect to see Canadian advertising manufacturers assume the offensive. They will know that if they can secure a portion of the trade which formerly went out of the country, they can afford to write off cetrain business, the loss of which was consequent on a measure of consumer retrenchment. And let consumers see with their own eyes manufacturers' copy running in the papers and those selfsame consumers—assured that the factory in which they are employed is going to keep running or the copy wouldn't be running—will commence again to make purchases with some measure of freedom.

Canadian manufacturers as a body must of necessity exist on Canadian orders; to the great majority "export" is an unused word. Orders will not be secured in dull times by methods that would fail in good times. One of the established beliefs of merchandizing is that properly-placed and properly-managed advertising is a force for facilitating sales. If this were not true, why would certain manufacturers —sixty per cent. of whose output might be styled luxuries—increase rather than decrease their advertising at this very moment?

They realize they have a big job on hand—that of securing orders when orders are unusually hard to secure. And they know full well that following the simple instinct of **going after business is the only solution** to the problem.

* Advertising Manager Dunlop Tire & Rubber Goods Co., Limited.

Hemlock and Hardwood Statistics

The Northern Hemlock and Hardwood Manufacturers' Association, with headquarters at Wausau, Wis., presents the following comparison of cut and shipments from January 1 to August 31, 1914 and 1913, which is based upon reports from the same firms in corresponding months:

Increase in hemlock cut, 1 per cent.
Decrease in hemlock shipments, 9 per cent.
Increase in hardwood cut, 13 per cent.
Decrease in hardwood shipments, 17 per cent.
Increase in total cut, 6 per cent.
Decrease in total shipments, 12 per cent.

Woodenware Openings in Leeds District

The Canadian Trade Commissioner at Leeds, England, in a recent report says:—"A steady trade is done in this district in various articles of wood for domestic and other uses. The supplies which reach here come mainly from the United States, Germany and Austria and there would appear to be keen competition for the trade which is done. To enumerate some of the articles in demand would be to mention clothes pins, pastry boards, washboards, chair seats, rolling pins, towel rollers, skewers and handles for picks and other tools. As stated, however, the competition is on a keen basis and this being the case the question of price figures largely when placing orders. Clothes pins, maple blocks and pick handles, it is pleasing to state, already reach this district from Canada."

Nova Scotia's Opportunities

Those who travel extensively in Nova Scotia for the first time are struck by the large proportion of the soil which is still under woods, and which, to all appearances, is fit only to produce wood crops. In addition to this, the visitor is struck by the suitability of the climate for tree growth. Such a large proportion of the province is absolute forest land (authorities estimate it at from 65 to 70 per cent.) that to allow this to be neglected is not economy, but waste. Highways and railways must be kept up through it to get from place to place, and on the very lowest plane of economy it should be producing freight. Of course, nearly all of it is producing some freight, but, like the cut-over timber land of the rest of North America, it is not producing to the acre anything like it should.

Another thing that strikes the visitor is that the fertile spots are very fertile, and very beautiful as pictures of farming scenery. So much of the land is not fit for farming that Nature seems to have balanced things by making the good parts very rich. Again, the visitor from inland Canada is struck by the presence of two important industries, coal mining and sea fishing.

This produces a state of affairs which is, in many respects, unique. Here there is a naturally good timber country, and right along side of it, and mixed in with it, is territory which requires timber. The mines require pit props, hundreds of miles of them, the fisheries require barrels and kegs and fishing craft, while the farms and orchards need boxes and crates and baskets and barrels. This is in addition to the houses, barns, sheds, fences, and other structures which all need. This very fortunate circumstance has been, in a way, a bad thing for forest industries. The fact that the market is so near at hand, and will use up so much inferior material, has led the people to underestimate the value of the forest. Frequently the man who makes barrels, or kegs, or crates, gets the material off his own property, or from that of his neighbors, and the amount used never gets into the statistics of the province. The Bulletin of the Forestry Branch of the Department of the Interior on the Wood Using Industries of the Maritime Provinces has gathered statistics from six hundred factories and shops in the three provinces of New Brunswick, Nova Scotia and Prince Edward Island, but even this large number, more complete than ever before, one feels sure does not take in all the men, who, for a part of the year, make staves, or hoops, or some other product used locally. This fact has kept, and still keeps, the people of the province generally from realizing the full value of the forest industries, and what it will mean when these industries disappear for want of material. Then the fact that much inferior and small timber can be utilized has led to much closer cutting of the forests than where only lumber of the standard size was made.

The apple growers are just beginning to realize that, whereas, ten years ago they paid only for the labor in a barrel or box, they now have to pay as much more for the material; so that the price has about doubled. The same state of affairs exists in regard to fish barrels and mine timbers.

The fact that the fertile lands occur in pockets, frequently in long, narrow valleys, has brought about a condition of things which exists scarcely elsewhere in Canada. Many of the farms have a narrow frontage on the river in the valley, and extend back over the edge of the valley into the hills beyond. Often these farms are four or five miles long. The fertile part is in the valley; the land in the hills is absolute forest land. Very few farmers are content with the income they derive from their fertile acres in the valley. They have been accustomed to supplement this by the sales of timber from the hills. This was a particularly satisfactory arrangement to them because the work in the woods came in the winter, when there was little work to do on their farms. In some respects it is a good way of handling timber. The difficulty is that the cutting has been carried on without regard to the principles of reproduction, and now that the farmers are getting toward the end of their timber they realize that they must either change their methods or suffer a serious decrease in income. This is all the more exasperating as they realize that they could secure prices for their timber in the future such as they never dreamed of in the past. Nor is this merely an incident in the general situation. When it is realized that more than half the timber land of Nova Scotia is held in these small blocks, running from two hundred to one thousand acres, it will be seen that when this problem is settled more than half the difficulties are met. In other provinces the provincial government can improve matters by new regulations and by better administration, but in Nova Scotia, where so much of the timber land is owned in fee simple, a great deal of the work must be done by educating the owners. There can be no doubt, too, that a great many of these men are anxious to know what to do, so that a forester who could go among them and give the information would have his hands full for several years to come. This will probably be the first work of the provincial forester when he is appointed.

Nothing has yet been said of the opportunity for the highest utilization of some kinds of timber in wooden ship building, which business has revived since the crash that followed the introduction of iron ships, and which seems destined to continue indefinitely in the construction of certain classes of vessels. Nor has anything been said of the particularly favorable position in which Nova Scotia stands in regard to export trade, both to Europe and to South America. Nova Scotia is a small province. Her timber has been heavily cut into, and still more heavily burned over, but much of the land is suited to the growing of timber, much of it is covered with woods of some kind, and timber reproduces readily and grows rapidly in the province. She has a number of native industries dependent upon wood, and she has great opportunities for export. All of which shows that action now will result in great advantage to the province in the near future and for all time to come.

Valuable Timber in Little Smoky River Valley

A report upon the timber conditions in the Little Smoky River Valley, Alberta, and adjacent territory has been issued by the Forestry Branch of the Department of the Interior. The report is written by J. A. Doucet, who was in charge of a survey in the district. According to a tabular statement it is shown that the area covered is 7,333 square miles, on which there is an actual production of 4,590,100,000 feet, board measure, of merchantable spruce and pine, and 20,009,600 cords of poplar and birch. The mature spruce and pine timber covers an area of approximately 364 square miles, with a production estimated at 2,839,460,000 feet, board measure. The young forest carrying merchantable timber covers an area of a little over 1,500 square miles with 2,672,680,000 feet, board measure, of merchantable timber of pine and spruce, and 2,675,600 cords of poplar and birch.

The nearly mature poplar covers an area of approximately 1,362 square miles and gives 17,336,000 cords of wood.

The pole-wood of 35 to 75 years old covers an area of approximately 2,060 square miles. This pole-wood, together with the 1,500 square miles of mixed young forest already carrying merchantable timber, are rich prospects for the future.

The area belonging to young reproduction is given as 1,408 square miles, while the area lately burned represents 740 square miles, approximately 20 and 10 per cent. respectively of the whole area.

The report recommends that of the area examined, an approximate area of 5,500 square miles should be placed under forest reserve. This area includes approximately 1,517,000,000 feet, board measure, of mature spruce, from the 1,595,000,000 feet that has been found existing on the whole territory, or a little over 99 per cent.

The poplar land, on the north, was left out, with the exception of a considerable portion of Block 1, where the soil is essentially sandy, and the stand of birch and poplar the most beautiful.

The area outlined contains also 722,000,000 feet, board measure, of nearly mature pine, and 1,120 square miles of young mixed forest already carrying merchantable timber estimated at 1,739,000,000 feet, board measure, and about 2,000,000 cords of poplar and birch. This area will, in 25 years, more than treble its actual given production. Moreover, this area contains nearly 2,000 square miles of pine and spruce pole-wood of a diameter at breast-height of three to seven inches mostly healthy and rapidly growing. At present it is a forest of great economic value, and it will soon become real wealth over a land that repeated forest fires can only turn into an encumbrance, or, at least, a desolation and a shame, if it is not properly looked after.

Export of B.C. Logs to United States

Since the tax on timber cut from Crown lands in British Columbia was reduced by the provincial government recently there has been considerable movement of logs to the United States. It is estimated that the exports during the first week after the embargo was partially raised amounted to 1,000,000 feet per day. Most of the logs exported are cedar, but the shipments include some fir. Royalties and export duties imposed upon timber cut on Crown lands are at the rate of $2 per 1,000 for No. 1 cedar, $1.50 per 1,000 for No. 2 cedar, $1 per 1,000 for No. 3 cedar, $1 per 1,000 for Nos. 1 and 2 fir, and 50 cents per 1,000 for No. 3 fir.

Mr. H. R. MacMillan, Chief Forester for British Columbia, expects that one result of the war will be the opening up of new markets for British Columbia timber. In this opinion, he says, he is supported by the timber agents of foreign governments who are resident in America. With so much destruction of property in Belgium, Austria-Hungary and France, not to say what may happen on the soil of Germany, there will necessarily be a great amount of rebuilding, in which timber will enter to a large extent.

Reports from Three Rivers, P.Q., state that the St. Maurice River is very low and that some of the sawmill companies have been obliged to close down their operations for a few days on account of shortage of logs.

New Pulp and Paper Mill being erected at Bathurst, N. B. to utilize the waste from logging and manufacturing.

The Bathurst Lumber Company, Limited

The growth of the Bathurst Lumber Company, Bathurst, N.B., has been among the most remarkable developments in the lumber industry of the last few years. A number of small concerns with outclassed mills and scattered limits have developed into a large corporation with efficiency as the watchword from the stump to the customer. The net result is that the operations have thus been put on a sound financial basis, which enables the company to do business in a modern business way, and thus to give customers most efficient service. Further, new mills have been built and the old ones rebuilt to latest standards, enabling the company to market a product manufactured to please and satisfy its customers.

Within the present season larger expansion has been in progress. A new electric power and lighting plant to operate the year around has been put into operation to serve the various properties of the company.

A new fast planing mill is now busy night and day dressing lumber in any way desired by customers.

The most extensive development has been the starting of building operations for a large pulp and paper mill, which, when completed, with the proposed extensions, will be the largest plant in Canada. Two units of this plant will operate next summer to manufacture twenty-five tons daily of bleached Mitscherlich sulphite pulp, and sixty tons daily of extra strong container board.

The pulp mill is located at the mouth of the Nepisiguit River, Bathurst, and enjoys the same unexcelled shipping facilities as the two sawmills on the harbour.

A branch line of the I. C. R. will run directly into the mill, which, with the harbour, will ensure immediate shipment of supplies and products in all directions.

An Arkansas Soft Pine Book

A new publication entitled "Arkansas Soft Pine for Building," has recently been issued in connection with the publicity work of the Arkansas Soft Pine Manufacturers. The publicity campaign carried on by this Association under the direction of Mr. Wesley T. Christine, Chicago, Ill., has produced excellent results. A large company in Iowa, referring to this says:—"It has resulted in benefit to us and probably to other dealers in the city who use your stock. We have already had more Arkansas soft pine in our yard this year than in any two years previous since we have been in the retail business." All dealers who handle Arkansas soft pine are furnished with booklets and other advertising aid of this nature without cost and the demmand for Arkansas soft pine is thus being built up with great success.

As Others See Us

The optimism which is being preached by the press of Canada by Canada's big captains of industry is having a steadying effect. There is less pessimism today than there was two or three weeks ago. Business men are disposed to take a hopeful view of the situation, which is being shared by the lumbermen. This is being increased day by day as the success of the allied armies is becoming more of an assured thing. A decisive defeat of the Germans, either on land or sea, would improve matters in Canada 100 per cent. As it is, Canada stands to gain enormously by the war. It is one of the chief food producing countries in the world and as its farmers are receiving enhanced prices for grain, flour, cattle and other products it means that the buying power of the great body of the Canadian people has been greatly increased. It is also believed that following the close of the war there will be a big influx of emigrants from war-stricken Europe, which will give an added impetus to the building trade and through that to the lumbering industry. At present, the bad effects of the war more than outbalance the good, but the time is not far distant when there will be a noticeable improvement in the situation. —From the American Lumberman.

Birch Coming Into Its Own

Birch should never have been substituted for mahogany or cherry. It should have stood on its own merit from the first. It is not a second-place wood, not an apology for or a substitute for anything. While it may be a compliment to birch that it has passed as mahogany for a hundred years, the time for compliments of that kind is now over, and the day is not distant when no one will wish to conceal real birch behind the false claim that it is a tropical wood. Without detracting one iota from the genuine worth of mahogany, it can be stated that birch possesses certain qualities which are superior to mahogany.

At the recent furniture show in Chicago the display of birch was instructive. When employed as an imitation of mahogany it was given the load to carry. If it was a bedstead, the rails were birch, because the strains fell there; if a chair, the arms and other parts were of American wood, where strength as well as beauty were demanded; if a hat rack or coat tree of slender central spindle, more than likely the strain fell on a birch piece.

It is not necessary to claim for birch that it is superior as a furniture and finish wood to all others in America. There are other extremely high grade cabinet woods in this country, and all that need be claimed for birch is that it ranks with the best of them. It is strong, hard, stiff, takes fine polish, responds remarkably well to the application of stains and fillers, and if a figured wood is wanted, selected birch supplies it. All of the qualities of a superb cabinet materiai are here. It is no experiment. It has held its place and gained ground from the first, and it has reached a point where it is able to stand on its own merits and against all comers, either domestic or foreign. This claim extends to lower as well as to the best grades of highly colored and finely figured stock. Birch fills plebeian as well as aristocratic places; it is the camp stool as well as the rocker; the bed slat as well as the carved legs of the grand piano. It is fit for nearly every part and class of woodwork. It detracts nothing from its long and honorable reputation to know that excavations have shown that the terrible war chariots of the Assyrians, with scythe blades on the hubs and spears on the ends of the poles, were made of birch—rims, hubs, spokes, axles, poles, and body. Then why hide the identity of this splendid wood under aliases and disguises.—Hardwood Record.

If I Were a Lumber Salesman

By G. D. Crain, Jr.

If I were a salesman of hardwood lumber, here are some of the things I would do as part of my job of selling the stock:

I would know the lumber I had to sell as well as it was possible to know it. Instead of going into the office of a consumer and talking about the lumber being "bone dry, good widths and lengths," I would say, "This stock is four months old, contains 30 per cent. of long and averages 8 inches wide." This would be substituting specific information of the sort that the user appreciates for the vague generalities which are generally used. The salesman on the road may insist that he cannot get this information; but if he shows his boss that it would make him a more valuable man and that he could sell more lumber at a better price by being able to describe the lumber, instead of merely talk about it, the information would be forthcoming. It would merely be necessary for the people in charge of the mill or yard to systematize the business a little, so as to have a record of the stock on hand. This might be difficult in the case of a wholesaler, constantly getting lumber in and loading it out, but it would be simplicity itself for the millman. At any rate, I would make an effort to secure this information, because it would be one of my strongest cards in selling the lumber.

In this connection I would get to the office of the company as often as I could and go through the yard, watching the lumber being handled and getting an idea of the way the stock is running. Every section has its peculiarities, and the salesman who doesn't know the strong points of his own lumber, in regard to appearance as well as dimension, is overlooking an opportunity.

Know More About Your Lumber

I would occasionally take a stack of lumber and look through it, measuring the widths and getting an idea of how the stock was running, independently of other sources of information. I have seen salesmen who, with specific information of this kind about some particular bunch of stock, go into the office of a buyer and describe the lumber in one or two stacks so thoroughly and convincingly that the sale was made immediately. No salesman can know too much about his goods, and yet it seems to be true that the average salesman of lumber, equipped merely with a stock-list and a few steretotyped descriptive phrases, knows a minimum about the merchandise he is trying to sell. May be that is one of the reasons why his chief argument is that his price is lower than that of anybody else. If he knew more about the lumber, he could forget price for a little while and talk quality. At least, he would know what not to say. Some salesmen tell a furniture man that their stock runs extra wide, merely to get the signature on the dotted line, and when the shipment comes in, and is found to contain a particularly large percentage of narrow—which the salesman should have known about—there is no reason to be astonished if the customer kicks. This is another reason why I would try to learn my stock of goods thoroughly before going out to sell it.

I would arrange to get a tally-sheet of every car of lumber loaded out to my customers. Perhaps the boss would tell me that this was none of my business; but if I could prove that it would not only help me to sell more lumber, by following up the good cars and getting the repeat orders while the customer was still thinking about what a nice lot of stock he had received, but would also enable me to settle complaints, since I could speak with authority about what the car actually contained, instead of having to harmonize the statements from the customer, he would probably be willing to let me see these records.

It is just as important for the salesman to know what the customer got as what he contracted to deliver. If the salesman in a shoe store agreed to send you a pair of $6 shoes, and when you got home you found that he had slipped you a pair of $2.50 brogans, you would be inclined to make a kick. A lot of customers, sold in perfect good faith by the salesmen, don't get what they ordered. This puts the salesman in a most embarrassing position, especially if he has to settle the kick, as he usually does. If he knew what every customer was getting on every order, he would be able to negotiate more effectively. And even if the owner of the business considers this information a part of the private records of the office, a report of some kind about each car shipped out would be a lot of help to the man who has to do the selling.

Investigate Every Factory

I would not overlook any opportunities to find out about the consumption of lumber. I would go through every factory where the owner would let me, and sneak in the side way if the superintendent didn't mind. I would find out why this customer was finicky about getting certain widths, and why the other was hard on one grade and let another lot get by. In other words, I would try to learn enough about the running of a woodworking plant so that when I went in to talk to the buyer about his lumber requirements, he would not have anything on me in the matter of information. I would try to make helpful suggestions whenever possible. If I saw the men at the machines wasting lumber because they failed to turn the board over and take advantage of the good side, I would tell the factory man about it, even though it started him to buying one-face lumber. He would be much more likely to stay with me if he thought I was trying to help him save money as well as to make money out of his business.

I would try to pick up labor-saving and money-saving ideas in every factory I visited, so that at the next I could give the head of the concern suggestions that would help him in his business. In that way I would find it unnecessary to buy cigars and dinners in order to make myself persona grata, but I would find a "Welcome" doormat at the entrance of every customer's office.

I would talk to salesmen in non-competing lines about consumers and their methods, so as to get the personal angle wherever possible. Instead of neglecting them, I would cultivate the acquaintance of the machinery salesmen, varnish men and others calling on the same line of trade, and in exchange for the information they gave me I would give them equally good tips on prospective new business. In this way I would hear about the new buyers coming into the market, and perchance also about some of the lame ducks who develop from time to time; and by avoiding the latter I would save my company thousands of dollars which undiscriminating salesmen might have allowed to go by the board because they were not careful about whom they sold.

Don't Be a Knocker

I would refrain from knocking other lumbermen and other woods. If my house happened not to be selling gum, I would not therefore proceed to lambast gum, because I would realize that perhaps next season there would be many cars of gum on the stock-list for me to sell. I would find it better to have a soft spot to fall on than to cultivate a bunch of thorn-trees to light in. I would have a good word for my competitors, but would confine most of my attention to talking about my firm, its lumber and its service. By adhering to this plan I would make the hammer of the knocker who went after my business turn into a boomerang, which would hit him in the back of the neck so hard that it would knock him over the edge of the horizon.

I would not miss opportunities to establish personal relationships with my customers, for while most business nowadays is placed in a purely business way, with no favors for anybody, it still remains true that, other things being equal, the buyer is going to follow his likes rather than his dislikes. In building personal however, I would rely on legitimate methods only, rather than those which might be classed by others as smacking of graft. I would let subordinates in the factories of my customers alone, and go to headquarters for business. I would keep an expense account that would not have to include gratuities to those whom I thought might some day be "useful."

These things sound good to me, because, perhaps, I am not a lumber salesman. But if I ever am one, I will try them out, just to see if practical business can't be run along the lines that seem just and honest and straightforward and helpful. I might be badly mistaken about the result; but at least I would learn the reason why.—Lumber World Review.

Sawmilling in Japan

The sawmilling industry in the Japanese Empire has been making important advances of late. A sawmill which was recently completed at Mt. Air is the largest and best equipped mill in the Empire. It is fitted with American machinery throughout, and is operated by electricity. It is intended to handle the lumber brought down from the forests on Mount Ari by a railway built up that mountain for the purpose. The grades on this line are very steep and the cars that will carry the timber are all fitted with air brakes. The number of tunnels and bridges on the line is large, and the torrential rains cause frequent washouts. The difficulties to be overcome are enormous, but when this line and mill do get into regular working order Taiwan will become a large exporter of lumber. It is not yet determined how the business will be carried on. At one time it was planned to form a company of all the firms engaged in the lumber business on the island and let this company have the rights. At another time it was thought that the business would be handed over by the Government to some one firm to become a monopoly controlling railway, mill, and forests.

Officers of the Okanogan national forest in the state of Washington are installing powerful signal lanterns for night use in reporting forest fires from lookout peaks.

A report upon the timber and soil conditions in southeastern Manitoba, has been issued as bulletin No. 45, by the Forestry Branch of the Department of the Interior.

Lumber Consumed in a Battleship

No Less Than 1,200,000 feet Required in the Vessel and Its Temporary Supports—Where It All Goes

The use of lumber in the construction of battleships is far more extensive than a great many people, even in the lumber trade, imagine. At the present time, when the navy of Great Britain is occupying so much of our attention, the subject is one of unusual interest and we are pleased therefore to be able to reproduce from the Woodworker, Indiannapolis, the following article dealing with the use of lumber and timber in the construction of a United States battleship:—

I often wonder how many men, employed outside the shipyard in the wood-working industries, actually know the amount of lumber used and the class of work done in the preliminary and permanent work on such vessels. No doubt some will be surprised to learn that over 1,200,000 ft. of yellow pine, spruce, oak and teak have been used in the construction of one of these monsters. Vessels of the Pennsylvania class will probably take more than this amount. Should we see one of these ships at anchor in the stream we would see no wood at all. Going on board, we would notice the wooden deck, but that would only account for about 10 per cent., or 120,000 ft. Where is the rest of it?

To answer that question we will have to start from the bottom, or rather start before she has any bottom. A vessel of the class of the Pennsylvania, or battleship 39, which is now building at the navy yard, Brooklyn, while building, will cover an area of about 60,000 ft., viz., 96 x 625 ft., and will weigh, when about to be launched, about 12,000 tons, which is about 40 per cent. of her total weight. Therefore, it is necessary that a foundation must be constructed sufficient to withstand this weight without any settlement. To accomplish this, piles are driven in rows across this space to be occupied, and each row is 4 ft. between centres. There are about 156 rows, with thirty-two piles to a row, in all nearly 5,000 piles. Each row is then capped with 14 x 14-in. yellow pine logs. In this item alone there are nearly 200,000 ft. of lumber.

But the vessel must be constructed in such a manner that she will slide into the water, and to do this must be built on an incline. That is, that the line of the keel will be much higher at the forward end than it is at the after end, so a declivity of about ½-in. to the foot is given her, which will bring her about 26 ft. higher at the bow than at the stern. To accomplish this a heavy structure, called cribbing, is built up at the forward end to the height required, about 26 ft., inclining downward to the water's edge. The cribbing is built of 12 x 12-in. or 14 x 14-in. yellow pine logs, crossed and recrossed and bolted together in a substantial manner.

Upon the cribbing are erected the keel blocks, which are built up in sets of five blocks, pyramid fashion, the lower one being 8 ft. long and the upper one 3 ft. long. The upper blocks are perfectly aligned to the declivity of the vessel and a perfectly straight line, known as the centre line, is struck and scored in on them, and from this line all measurements are taken. There are at least 150 sets of keel blocks, placed 4 ft. between centres, and all blocks are dressd on two sides. The keel blocks being in perfect alignment, we are now ready to lay the keel. But as we are not ship-fitters or iron-workers, and only dealing in lumber, we will leave this to the master ship-fitter and wish him well, for his troubles are commencing.

The ship starts to grow, plate after plate is put in place and bolted up. The shipwright must construct false work to receive them, must shore up to get them in position, must regulate them to hold the shape, and the mill provides him with the wherewithal to do it. Scaffolding and staging must also be provided, until a veritable forest of timber rises under and around her. The time is fast approaching when the work on the vessel will be far enough advanced to put her overboard, for she must go over just as light as possible. This is usually done when the hull, exclusive of the armor, is completed.

The carpenters have been building the ways, on which she is to be launched, in some other part of the shipyard, and these are worthy of description. First come the groundways, 12-in. in thickness, 72-in. in width, the length of the ship and enough beyond to carry her into deep water, approximately 700 ft. The groundways are built of 12 x 12-in. yellow pine, in sections 100 ft. long, and as there are two sets of ways, one port and one starboard, it will require fourteen sections, 12 x 72-in. x 100 ft. This material must be clear, no defects in lumber being allowed. The groundways are slid into place under the vessel and on the same incline, perfectly aligned, bolted together and secured to the cribbing on which it rests. They now form two immense tracks, one on each side of the keel, and about 15 ft. out from the centre line, and on these the ship is to make her first voyage.

Next come the slidingways, which are 12 ins. thick, 66 ins. wide and approximately 500 ft. in length. They are built similar to the groundways and are placed on top of them, with an opening about ¾ in. between, in which to run hot tallow and graphite. The extreme upper ends of the slidingways are bolted to the groundways and these few bolts are the last thing that hold the ship from sliding into the water until the order is given, "Cut away." With the ways in position, there still remains about 3 ft. from top of ways to bottom of ship, and this must be filled in so that the weight can be taken off the keel blocks and shores on which she rests, and transferred to the ways. And here the mill again has a job on its hands.

Oak wedges, 7 ft. long, 6 ins. wide and tapering from 6 ins. at large end to ½ in. at small end, dressed on both tapered sides, are made, and it will take about 700 of them for the job. These are placed across the top of slidingways, about 18 ins. apart, with butt ends projecting about 18 ins. over edge of ways. On top of the wedges comes the packing, which is to fill up the intervening space. This is usually 4 x 12 yellow pine plank, s.2s., as wide and as long as the slidingways and built up from top of ways to bottom of ship. The planking that comes next to bottom is fitted to conform to curvature of the hull, so that the vessel rests in a snug-fitting cradle.

Packing and slidingways are now made fast by wire cable to the ship, and hot tallow and graphite are run into the space between groundways and slidingways. All shores, staging and scaffolding outside the ship are then removed. Double bottoms are shored and stiffened temporarily with wood, and all precautions taken to insure a successful launch. The vessel is now resting on the keel blocks, with a few temporary shores here and there.

The great day arrives and everybody is on edge, especially the naval constructors and master mechanics, upon whom the responsibility for the successful launch devolves. The wedges are rammed home; this is a heart-breaking job, but does not take long. The keel blocks are split out, the remaining shores tumbled down, and now the whole weight of the vessel is resting on the groundways, and nothing prevents her from sliding into the water but the few bolts which hold the slidingways to groundways. The order is given, "Cut away," the slidingways are cut through just below the holding bolts, and the vessel breaks away and commences her graceful journey to the water.

The launch over, let us get back to work, for she is but 40 or 45 per cent. complete, and there is a great deal to do before she can meet the enemy in battle. The carpenters and mill men have as yet done very little permanent work on her and there is still the armor backing and the wood deck to be done. All parts of the ship that are to be covered with armor must first be covered with teakwood, and this wood is known as armor backing.

The backing for the belt armor usually extends all around the vessel and is at least 7 ft. below the water line to about 5 ft. above, and from 3 to 6 ins. in thickness. This is all sawed from the log into planks and dressed on two edges, with edges slightly bevelled to form what is known as a caulking seam. The sides of plank are then sawn to conform to the curvature of the vessel's hull. Above the belt armor backing comes the casemate armor backing, which extends from 350 to 400 ft. over the vital parts of the ship, such as engine room, boilers and magazines. The casemate armor backing is treated in the same manner as the belt armor backing, viz., dressed on two edges. All armor backing is bolted to ship, bolt heads counter-sunk and plugs put in over the bolt heads. We will require 10,000 1¼-in. diameter plugs for this.

The turret armor backing comes next. She will have four turrets, elliptical in shape, with sloping sides. They will be 6 ft. 6 ins. high, about 40 ft. long and 30 ft. in width. It will take 20,000 ft. of 6-in. timber to cover them. As the sides of the turret slope inward, it is obvious that the top must be smaller than the bottom. As the backing on the turret is put on stave fashion—that is, the plank running up and down—it will be readily seen that the plank will be larger at the bottom than at the top, consequently they must all be tapered. Further, the taper is not all the same, because, as the turret runs aft, the sides are almost perpendicular, and this gives a twist to the plank. In getting the twist the degree of twist is given at about every foot and marked on the edge of plank. The plank is then sawed on a bevel band saw (common to shipyards), whose upper and lower wheels turn on a circular guide, whose centre is the point where the saw passes through the table of machine. On a saw of this description you may commence sawing with the saw square with the table and finish with the saw 45 deg. to the right or left. It takes two men to operate this machine properly.

And now comes the deck. Nothing but the best material is used in this; it must be rift-sawed and straight-grained. Teakwood is used here, as it is considered the best wood for ship-building purposes. It is very durable, does not shrink or warp when seasoned, will not injure iron, nor will iron injure the wood. It will take at least 200,000 ft. of logs to make 125,000 ft. of material fit for decking, as teak is a very wasteful wood; there are large heart shakes in it and nothing like this must enter.

The deck planks must be run to an accurate width, as they must be bolted to the iron deck upon which they lie. The holes have been drilled in the iron deck and spaced accurately, therefore we cannot afford either to gain or lose in the width of plank, or we would ver

soon have the bolt holes over into the caulking seam. The plank will be 3½ x 3½ ins., and as the ship will be 96 ft. in its widest part and the plank are laid fore and aft, it will take about 320 plank laid side by side, exclusive of margins, to cover this space. The decking is s.4s. and out-gaged; that is, the sides of plank are bevelled slightly so as to leave an opening between the planks on the top edge, which forms a caulking seam; 5/32-in. is allowed between each plank.

Considerable trouble is experienced in dressing teakwood, especially where it is necessary to hold an exact width. It is apparently easy to work, not very hard, but it is very sandy, and with the ordinary soft steel cutters, running at the rate of 60 ft. per minute, it is impossible to run more than 400 lin. ft. without filing. With hard cutters you may possibly double this amount. I have seen cutters, after running 400 lin. ft., worn away 1/64-in., so it keeps a man constantly grinding and setting cutters.

Besides the teak, yellow pine, oak and spruce, there is about 80,000 ft. of soft Idaho white pine used for templets of plates and frames. This is all ripped into 3, 4 and 6-in. material, resawed to ⅜ and s.2s. to ¼-in. When the battleship is complete and goes into commission, there is a bill for about 1,200,000 ft. of lumber against her, and probably only about 300,000 ft. will actually go into her construction.—H. E. G.

Rounding Up the Fall Trade

By a Lumber Association Secretary

The farmer has his busy plowing and cultivating season in the spring and early summer, but the busy plowing season for the retail dealer serving the country trade should be in the fall when the farmer is not too busy and is in just the right kind of shape to be cultivated himself with ideas and inspirations to buy lumber and other material to improve the farm and get it in shape for winter. This is the time of the year for the retailer to turn mixer, to get out and hustle around among the farmers, not merely to see what they want, but to help make them want a lot of things that they have never thought of themselves.

Forrest Crissy, who has written quite a lot of gingery stuff about merchandising and live-wire methods, in a recent story in the Saturday Evening Post about teaching the retailer how to fight said among other things, that the best country storekeeper he knows of spends about as much time in his automobile getting around the country as he does behind the counter. Incidently he makes his machine pay better dividends than any other one thing he owns. He makes it his business to understand farmers right down to the ground. He takes a real interest in the things that make up the farmer's world, and as a result the farmers not only know him—and he knows them—but they like him and he gets their trade.

There is no reason on earth why this kind of logic will not apply to the retail lumber dealer as well as to the retail merchant in the town, for really that is what a live retailer is—a merchant. And if he is really alive he will sell many other things as well as lumber, notwithstanding the sentimental, spell-binding talks on the sentiment of lumber against all substitutes.

The man who makes it his business to get out and cultivate the farmer—if he is the right kind of a man and takes a real and not a superficial interest in the matter—will develop many other things besides acquaintances. He will develop ideas that will help him build trade; he will see where this improvement and that can be made to farm and farm buildings, and he will give good counsel to the farmers and get good trade in return.

Talk Farm Machinery Protection

In the fall is the time when one sees farm machinery standing out under trees or in fence corners or somewhere that needs to be housed in proper sheds. It is easy enough to demonstrate that the farmer can save money by properly housing everything of this kind. There are many new things involved, too; it is not merely the old mower, reaper and cultivator, but there are now farm tractors of various kinds, which to properly take care of call for extensive house or shed room. Where these things are found the right order of salesmanship should result in getting orders for lumber and roofing material, for cement to make concrete, for drain tile, paint and various other things.

The fall season is above all the season for putting all manner of roofs in order. It should be a busy season of sales of all kinds of roofing material including shingle, slate, tile, metal roofing and composition roofing. Right along with these, too, goes sales of paint, both roofing paint and sidewall, exterior and interior paint. There is no need for extended argument to the retailer on these things—what we need is for the retailer to develop the practice of geting out in the midst of his trade and extending argument about them to his customers.

Some retailers make the mistake of staying right close to their business during the fall season because it is naturally a sort of busy season with the farmer customers, and he expects many of them to come in. Staying close to his business is the right idea, but he should not overlook the fact that his business extends out over a wide territory and is not all located right in his office and yard. A man with a business worth while should have help that is competent to make estimates and handle customers. Then while not neglecting his business at the office for the help to run entirely, he should make it a part of his own business to spend a lot of his time going out among his customers, not only to keep in touch and see what they want, but also that he may know what they need and what they could use in addition to the expressed wants. There is room for the right kind of persistent work of this kind to develop a volume of trade which might not otherwise come that may often equal the volume of trade that just naturally comes. Which, stated another way, means that the right kind of effort and hustling around may double the volume of the fall business done.

Consider the Women Folks

One of the good things about a yardman running around the country visiting with his country customers is in the fact that it helps him get acquainted with the women folks, too, and through this develops an interest in and consideration of the women folks. In the city trade a man may run around in an automobile and visit customers for months without meeting up with the women folks of the family. In the country this is different. When the retailer goes out on the farm to the customer's home he generally meets in the round the women folks as well as the men folks. This is worth something—worth more, perhaps, than the average retailer has realized.

The women folks of the country are taking a much more active interest in building operations and outside work generally than they ever did before. They are not only taking a keen personal interest themselves, but this interest is taking on the form of a factor in the purchasing part of the game. The man who can develop friendly acquaintance with the women folks throughout the country and get them to coming to his place of business along with the men will not only get more trade by this, but he will develop a friendship that is the best safeguard in the world against cut-throat competition and the mail order sharks. So long as the women folks are not induced to come and look over the stock the local yardman has to offer, their main knowledge of building material comes from what they see in other people's houses and what they see illustrated in catalogues, and it is these illustrations and catalogues that help turn lots of the trade in that direction.

We have reached the time when women folks should be seriously considered in the mater of lumber and building material, no matter whether it is city trade or country trade. It may take different methods to reach the feminine interest in the city from in the country, but in each case it is an important factor and needs more attention. They may not know at first just what they want, but women's wants do a lot to shape the buying; and the man who takes the trouble to arrange his office and display room so that it will be inviting and informing to the women folks will likely find it a good business proposition. It will not only help him get and hold trade, but when he can get the interest of the women folks it will be found much easier to handle stock patterns in sash and doors and get more profit out of it with less expense to the customer than is involved in the making of so many special things to order because the customers develop their own notions. As an educational proposition for inspiring and shaping tastes alone it is worth while, and it is a good business proposition entirely aside from this. So make it a point to cultivate the feminine as a factor in the arrangement of display rooms and in the office equipment so that you may be prepared to make the women folks so much at home that more of them will come to you when they want something or have under consideration plans for building anything from a chicken coop to a new home.

The Hubbard Oven for Camp Use

The attention of our readers is called to the advertisement of the Warren Manufacturing Company, Limited, on the inside front cover page of this issue. The illustration shows one of their Hubbard Ovens, which are in use by representative lumber operators throughout Canada, and are specially suitable for lumber camp use. The numerous advantages which the "Hubbard" has over the old time ovens, in its durability, efficiency in baking. and compactness in design, make it practically indispensable for every camp. In several lumber centres the same Hubbard ovens have been in constant use for fifteen years and are still giving satisfaction. Lumber operators would do well to get the illustrated literature of the company, which is sent free for the asking.

The Supreme Court of Pennsylvania has decided that the amount of damage collectible on growing timber set on fire through negligence is not only the value of the wood destroyed, but also the injury to the property as a whole through the destruction of the young growth.

A Lumberman's Life Story—From Tally Boy to Lumber Baron

By C. P. McDonald

(This is the life story of one of Chicago's most successful lumber dealers, whose identity, for obvious reasons, must remain anonymous. How he rose from a humble beginning to a position of influence and power in the lumber world is best told in his own words. It is chiefly for this reason that his name is withheld from publication).

"Forty-eight, sixteen, five short!"

"Forty-eight common, sixteen cull, five short!"

"Did you get it?"

For several years these and similar expressions were my daily diet. They are not euphoneous phrases, perhaps, but to me they never ceased being sweetest music.

I first heard them 'way back in the early '70's. I still hear them today. Often I catch myself humdrumming the shout, "Forty-eight common, sixteen cull, five short!" my fingers tapping in rythmic unison with the words.

I still can hear the guttural voice of the chief inspector as each plank, batten, and deal came up from the hold of the vessel in which it was stored. I can hear the faint scratch of my pencil flying across the smooth surface of my tally sheet, recording grades of lumber and dimensions as the figures and names floated to me from the deck of the boat.

"Did you get it?" The question was bawled to me every once in so often. The inspector, as the timbers sometimes crashed about him, failed to catch my sharply ejaculated "Check!" At other times I answered with a hardly perceptible mutter, mechanically jotting down dimensions, my mind trying to penetrate behind the curtain of futurity. For from the first moment after I had become a tally boy my dreams ever were of the time when I should become a lumber dealer and direct the destinies of my own big plant.

All boys indulge in dreams. Without them the world would be a sorry affair, devoid of the one big thing that makes life worth the living. The trouble is the dreams of many young men never are realized. This failure of realization usually is charged to adverse luck. I don't believe luck ever figures in such things. The young failures, to my way of thinking, never chirk up because they have confused dreams with moods. They do not work and apply themselves to gaining the ultimate goal. They wait for a lucky turn of the wheel and do not strive to make their dreams realities.

My dreams were of the material kind. I meant to cash in on them some day. That perhaps is the reason why I did not take my place in the rank and file of the business failures. I believed myself made of sterner stuff. I did not, of course, set myself up as a paragon of wisdom. There were a lot of boys working around me who, I frankly admit, were wiser than I, whose educations were superior, who possessed greater strength. But their greater strength was only of the physical caliber. My strength was concentrated on purpose, theirs on the accomplishments of acrobatic feats and muscular achievements. While they developed their sinews and their brawn I assimilated a valuable knowledge of the lumber business. There is a vast difference.

For instance, I'm the head of my own concern right now, have a big lumber business and enough money to keep me from worrying. One of the boys who started out with me is a motorman in Omaha. Another is clerking in the freight department of a railroad. A third wrote me a year or so ago that he had become a business nomad—working here today, there tomorrow, making barely enough to keep himself abreast of the tide. So you will see from this illustration that it isn't the smartest boy who picks the plums, but the one who absorbs the principles of his work and puts them into practical circulation.

Father was a carpenter—and a good one, too—when he brought his family to Chicago from County Mayo, Ireland. While father worked I was permitted to attend the old Kinzie school. When he didn't I helped out. During the summer I worked as a tally boy for a big lumber concern. I got $4.00 a week, which was pretty good money in those days.

My duties as tally boy involved going on a boatload of lumber. I sat on a box in a convenient spot and marked down the feet and grades that were called out to me by the inspectors who were put on the cargo for the purpose of determining the amount of feet and the quality of the lumber in the cargo.

In the early days of the lumber industry in Chicago this lumber was shipped in by vessel to the wholesale market in Franklin and South Water streets, and the dealers used to go out to the market in the morning and look over the vessel loads of lumber that came in.

They then would examine the different cargoes and pick out what lumber they thought would suit their trade. The price of lumber was fixed by supply and demand, and if there was a big field of lumber in the dealers got it as cheaply as possible. We had to demonstrate the quality and grades of each cargo before we could make a sale. To do that a man had to have a thorough knowledge of the grades of lumber in the cargo, and he also had to know the requirements of the dealers. To be a successful salesman a man had to familiarize himself with the trade of his dealers and anticipate their wants in many cases. Some dealers bought different grades for their trade than others did. To get his price the salesman had to have knowledge of the trade of the various dealers. But I anticipate.

In my position of tally boy I was required to figure up the tally sheets of each cargo of lumber and make a report to the buyer and seller of the amount and grades of lumber in the cargo. In this way, of course, I became efficient. The inspectors took an interest in me because they approved of my earnestness of purpose. They did all they possibly could to acquaint me with the different grades of lumber.

I had been a tally boy for several years when I learned that another lumber firm required a new bookkeeper. My duties as tally boy had qualified me, and I applied for the job and got it. I got a substantial increase in my pay envelope, I might add incidentally, but I don't believe the exact figures would add any weight to this life romance of mine.

As bookkeeper I learned a lot more about the lumber business. I entered into the spirit of the labor because my youthful dreams then were as strong upon me as every they were. As a tally boy I had determined upon becoming my own boss. As a bookkeeper this determination still grpiped me.

Well, when I had wrestled with the company's ledgers for a few years, I was promoted to the position of general cashier. In this position I got much inside information that was to stand me in good stead when I ultimately embarked for myself.

A larger lumber company offered inducements one day. This company wanted a competent bookkeeper who would understudy the sales manager. They owned large mills in Michigan and shipped their lumber by car through the different states. I qualified, became sales manager, and was put in charge of all the selling.

Several months later the firm sold out and I went with another lumber company—a Michigan concern—as their sales manager on the Chicago lumber market. This firm sold all their lumber by cargo to the yards and dealers in Chicago. In those days we used to freight lumber by vessel for $1.25 a thousand feet. Today the freight is from $7.00 to $8.00 a thousand from the south and $15.00 to $16.00 a thousand from the coast. That will explain, in a general way, why the price of lumber has advanced.

My business took me through the lumber camps each year, where I was supposed to look over the log cutting and familiarize myself with the quality of the lumber that would be produced from those logs the ensuing year. Here I got my real insight into the lumber game. I found tree felling an engrossing study. I learned, for instance, that when a tree is felled too young the proportionate amount of sapwood is softer than in a tree that has been permitted to mature. On the other hand, the wood of an old tree loses considerable of its toughness. Full grown trees contain heartwood in its greatest proportion, the sapwood remaining firm and elastic. Lumber cut from such trees is strong, tough and durable.

When Norway fir and northern pine trees reach seventy years they are matured. This maturity sometimes takes longer. But when such trees reach the venerable age of seventy and from then on up to one hundred years, they are considered worth while. Between fifty and one hundred years is the best time to fell the larch, the elm, and the ash. The oak should not be cut before it is ninety or one hundred years old.

The sap of trees is at rest during the midsummer and midwinter, Therefore those are the best seasons for felling timber.

I learned all this from the gang foreman, rough, rugged, big-hearted men, who treat the hard and seamed side of life as a huge joke, daily grin at the prospect of sudden death, and who never are so happy as when they carry their lives in their hands. They know lumber, however, as the astronomer knows his telescope, the physician his remedies, the jockey his steed.

I recall a long talk I had with Jerry Casey, a big Celt who had known my father as a boy in County Mayo. Jerry had been foreman of one of our Minnesota gangs for many years. He loved his business, the life, his acute lumber wisdom. He joyed to talk about either. He liked the way I mixed and it is to him that I owe much of the knowledge I acquired of the lumber business.

"Jim," said he one day, "if you're going to be a successful sales manager you've got to know lumber. I'm going to tell you some things you may not know. If you do know them, my angle may add to your wisdom. You ought to know what a balk is—a log sawed or hewed to a square section, varying from eleven to eighteen inches square in size. You ought to know what deals are—parallel sided bits of timber from two to four inches thick and about nine inches wide.

"Do you know what battens are? Well, they are somewhat like deals, only they're not more than seven inches wide. You'll get a lot of calls for ends. They are bits of deals, planks, and battens under eight feet long.

"Beware of deals, Jim, bearing coarse rings. These rings are layers of wood which grow upon the tree annually. They bring about

a coarse grained wood which isn't desirable for the best class of work. Reject such deals, Jim, as you would those with waney or naturaliy beveled edges. When these coarse rings are wide they indicate that the mother tree probably has matured in marshy ground, which ground has a tendency to mature a tree too quickly.

"I'll take you around a bit and show you just exactly what I'm trying to drive into your skull. Would you know when a tree is suffering from cup shake? No, I thought you wouldn't. Well, cup shake is where the interior of the tree splits naturally between a couple of annual rings. Severe weather will raise the very devil in trees, Jim especially when the sap is running down. When the sap freezes, cup shake follows."

Jerry ran along in this vein by the hour. You couldn't stop him if you had wanted to, and I'm sure I didn't want to. Why I was learning more from this wise old Irishman in half an hour than I could have learned in a year under ordinary conditions. He explained other diseases of timber—or, perhaps, I should designate them as defects. He told me about heart shake, upsets, doatiness, star shake, and foxy timber. I owe the greater part of my success to Jerry Casey, gang foreman. And I might digress right here long enough to say that Jerry's kindness in instructing me wasn't overlooked when I became my own boss. Right now Jerry is handling a big gang of lumberjacks in my big camp in Minnesota. He's getting what I meant should be the biggest salary a gang foreman ever got.

It was hard work saving my first thousand dollars. Every man who has made a success of himself will tell you that same thing. And there isn't a particle of fiction in the statement, either. Few young men of the present generation, getting fabulous salaries in comparison with those the boys got in the early days of the lumber game, save much. If it's hard for them to save, what must it have been for the tally boys and bookkeepers working for a pittance? It's not a hard proposition to solve.

In 1890 I had a long talk with my brother, also a lumberman on a small scale. He wasn't satisfied. He didn't want to work for other people all his life. Neither did I. He had a good working knowledge of the game; mine was a little more advanced, owing to my frequent visits to Jerry Casey's camp.

"It takes money," I told Patrick, my brother.

"Granted," he conceded. "We've got a thousand apiece. That's enough for a start. We're both known to the dealers and the trade. Our reputations are untarnished. We can raise what little additional money we need."

His argument prevailed. Truth to tell, it didn't take much of an argument to make me take the plunge. The men for whom we both worked were waxing rich in the lumber business. They, in days gone by, had to make a start.

We went out among our friends and raised the necessary capital. We opened headquarters in Chicago, but operated in Minnesota, Wisconsin, and Michigan. It was at the start that I enlisted the services of Jerry Casey. He was tickled to death to join us in the venture.

We enjoyed an exceptionally good business right from the beginning. It didn't take so much money to open with in those days, although competition was keener than it now is. You see, there was so much lumber thrown on the market. As the years went by and lumber became scarcer and scarcer, prices began soaring. It takes a preety good bunch of working capital to open a lumber business today.

When we threw open our doors lumber was, as I have said, sold entirely by cargo, shipped in by vessel to the wholesale lumber market in Franklin and South Water streets. Today that market is out of existence and practically all lumber is sold at the mills.

Dealers in those early days couldn't pay cash for their lumber, owing to a financial depression. Lumber sold at extremely low prices. We found it necessary to extend credit, and so took the notes of the lumbermen and discounted them at the different banks. The credit of the Chicago lumbermen was gilt-edged and banks were anxious to handle that class of security. We therefore had little trouble in discounting good paper.

We had frequent transactions where we sold from 5,000,000 to 7,000,000 feet of lumber a day. As business developed we opened yards in several important towns in Iowa. Sales are different now. The transactions themselves are different. Where we sold only by cargo in the '90s, we today sell entirely by carload lots, and the volume of business done by a firm at the present time isn't as big as it then was.

Sometimes we averaged from three to eight cargoes a day. That's quite a bunch of lumber when you sit down and figure it out. A cargo of lumber, for instance, would average about 175 carloads. There are approximately 350,000 feet of lumber in a cargo. In a carload lot there are something like 20,000 feet, Today, a lumberman does a good business if he disposes of twenty cars a day. There you have actual comparative figures of what the lumber business was and is.

For instance, a good day in our first year meant eight cargoes. Eight cargoes averaged 1,400 carloads. With 350,000 feet to the cargo we sold 2,800,000 feet of lumber. Today it is governed entirely by demand. If a dealer has a good trade, it makes a big demand on the manufacturer for his class of lumber.

In the early days hemlock wasn't saleable. You couldn't give it away. Nobody would think of buying it. But lumber has grown steadily scarcer and scarcer. Today hemlock furnishes at least half of the lumber that is used. Coast lumber wasn't in demand in the Middle West then. White pine from Michigan and Norway was used here almost exclusively. White pine was cheap, selling then for less than hemlock sells for now. And just to think that hemlock once was an absolute drug on the market, and if you wanted it removed from your tract you had to hire the work done. People today are too prone to blame a mythical lumber "trust" for the existing high prices of lumber.

While my brother and I were operating our company, I became interested in a big lumber manufacturing plant with some lumbermen in Wisconsin. This was, of course, a business separate and distinct from the brotherhood concern. Today, I have large lumber interests in Washington, am a director in one of Chicago's biggest banks, have large coal interests in several growing companies, and enjoy automobiling and golf. What more could a man wish for?

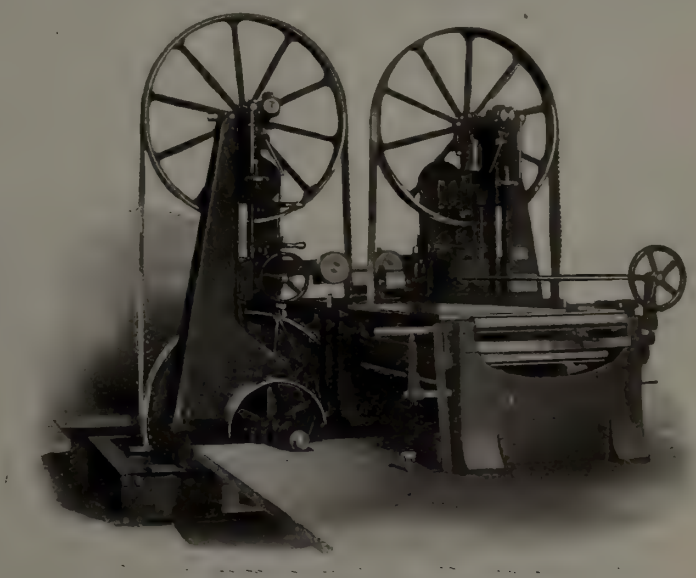
So much for youthful dreams. Dreams, I always have maintained, are negotiable if one but seeks to understand them. Application is but a mild form of dreaming, argue against the theory as you will. When you dream of becoming wealthy, your own boss, acquire the knowledge that is essential, before you can make your dreams become tangible.

Consult with the Jerry Caseys of the business you are engaged in. Every enterprise has its Jerry Casey. No business would be complete without him. When you become your own master, hire Jerry Casey. He has the knowledge which upbuilds, expands, captures the elusive dollar. When you've gone into the game and dug out its secrets, qualified to operate your own concern, let Jerry Casey boss the gang. It's a combination that never was known to fail.—The Disston Crucible.

The Band Saw as a Gang Edger

The accompanying illustration gives an idea of the wide diversity of uses to which band saws are now being put. The picture represents a gang edger, making use of band saws in place of circular saws, the lumber guide and one saw being movable, the remaining saw being stationary.

The machine is the product of the shops of Wm. B. Mershon & Company. The wheels are 54-in. in diameter; the saws carried, 6-in. in width. The lumber guide recedes 16-in. from the stationary saw, and the movable saw is adjustable throughout a range of 10-in. It is



Mershon Gang Edger Using Band Saws

thus possible to edge the narrowest strip or to handle the widest board or flitch that presents itself. The upper press rolls rise to a height of 12 inches or more, as the machine is designed for the handling of timbers, cants, and flitches, as well as plank. The movable saw is mounted on roller bearings and a simple power control permits the quick and accurate setting of the saw.

The machine is primarily designed for Pacific Coast service. The upper press roll being 11 inches in diameter, slabs of varying thickness can be sawn without adjustment of the press rolls. The adjustment of the press rolls and revolving saw guide is controlled from the front of the machine, as are also all of the other adjustments.

Many of the purposes to which this tool can be put in connection with sawmills and factories will suggest themselves to the practical mill man.

Additional information will be furnished from the Saginaw office.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Export Birch

Hardwood lumber wanted for export.
The Fletcher Pulp & Lumber Co., Ltd.,
20-21 Sherbrooke, Que.

Cedar Railway Ties

Will negotiate at once with producer only for purchase of Cedar Ties—2,000 at once and 7,000 Spring delivery. Also for 25-ft. and up Cedar Poles. Quote prices and particulars to Box 82, Canada Lumberman, Toronto. 20

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

For Sale–Lumber

For Sale

St. Frances Valley, Arkansas, Band Sawed Red Gum, dry, choice stock, all grades. Inspection guaranteed under National Rules.
The Crittenden Lumber Company,
19-22 Crittenden, Arkansas, U.S.A.

2 Cars—8/4 Hard Maple No. 1 Com. and Bet.

2 cars 8/4 Soft Elm, No. 1 Com. and Better.
2 cars 4/4 Basswood, No. 1 Com. and Better.
Good lengths and widths. Dry stock.
20 BERT S. SIMPSON, Farmington, Mich.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.
GEO. C. GOODFELLOW,
c Montreal, Que.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale–Machinery

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.
THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

WOODWORKING MACHINERY FOR SALE: 1 40-in. MacGregor-Gourlay pedestal bandsaw; 1 32-in. disk sander with boring attachment; 1 No. 1 Ballantine dowel machine; 1 Goldie & McCulloch 2 spindle wood shaper; 2 26-in. revolving bed, double surface planers; 2 20-in. Ideal pony planers; 1 25 gallon advance glue heater with warming chambers for eight 2-quart pots; 2 10-in. four side moulders; 2 lightning cut-off saw tables. H. W. Petrie, Limited, Toronto, Ont.

For Sale

Saw mill, 8 ft. Allis Band, 6 ft. Allis Resaw, Clark Carriage, Prescott Set. 12 in. Steam Feed, Edger, Boilers, Engines, Dynamo. Complete mill ready to run.
14 Russell Log Cars, 60,000 capacity, 26-in. wheels, air brakes, 12-ft. bolsters.
Eight miles of 45-lb. Steel Relaying Rails, excellent condition. Wheel Press, Lathe, Planer, Crucible for Brass, Power Drill.
All of the above equipment is at Marlinton, W.Va.
Campbell Lumber Company,
20-23 Marlinton, W. Va., U.S.A.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cent

Position wanted as inspector of lumber. Twenty-five years' experience. Best of references. Any kind of lumber. Have some capital. Will not work for small firm. Address J. Golden, Rutter, Ont. 20-22

Position wanted as Superintendent of woods or mill, or both. Understand the lumber business from stump to the building. Twenty years' experience. A1 references. Box 79, Canada Lumberman, Toronto. 20-21

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED a competent man to look after bush operations. Apply, F. W. Brennen & Company, Hamilton, Ont. 18 21

Wanted—Superintendent to supervise extensive pulpwood logging operation. Must have good general business and executive ability and practical experience, particularly in pulpwood. State confidentially full experience, present position, age, etc. Box 81, Canada Lumberman, Toronto. 20

Business Chances

Retail lumber business for sale, a going concern, prospects good, splendid chance for live man. Apply Geo. W. Mortimer, Niagara Falls, Ont. 18-20

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Sale of Pulp Timber

Sealed tenders will be received by the Minister of Lands at Victoria, B.C., not later than noon on the 30th day of November, 1914, for the purchase of nine (9) pulp licenses, situated on the Coast of British Columbia, and estimated to contain the following:—

Hemlock	87,301,000 ft. B.M.
Balsam Fir	44,444,000 ft. B.M.
Spruce	43,244,000 ft. B.M.
Cedar	27,779,000 ft. B.M.
Douglas Fir	2,779,000 ft. B.M.
Total	205,547,000 ft. B.M.

his timber is within ten miles of salt water and is tributary to Vancouver.
Thirty (30) years will be allowed for the removal of the timber.
For full particulars and maps, address H. R. MacMillan, Chief Forester, Victoria, B.C. 17-20

Tenders for Ties, Posts, &c.

Sealed tenders addressed to the undersigned, and marked on the face of the envelope "Tenders for Ties and Posts, etc.," will be received until noon on **Thursday, the Twenty-second day of October next,** for 25,000 Cedar Railway Ties, No. 1 and No. 2 quality; 25,000 Cedar Posts of 8 feet long and 8 inches and under in diameter, and 500 Cords of Shingle Blocks, which the Indians of the unceded part of Manitoulin Island are to make from dead and fallen trees, during the ensuing winter and deliver at convenient points for shipment from the shores of Lake Huron.

Tenderers should state the prices they are prepared to pay for No. 1 and No. 2 Ties, and also for any that may be rejected from these descriptions; and for the Cedar Posts and Shingle Blocks, over and above the Crown Dues of 4 cents each for Ties, 2 cents for Posts and 75 cents per Cord of 128 cubic feet for Shingle Blocks, which shall be payable by the successful tenderer to the Department, under Sworn Returns, at the close of the Season, before shipment.

In the event of any dispute in regard to the classification of Ties, the decision of the local Indian Agent shall be final.

An accepted cheque on any Canadian Chartered Bank, for $500.00, made payable to the order of the Receiver General, should accompany each tender, which in the even of failure to carry out the undertaking shall be forfeited to the Department.

The highest or any tender will not necessarily be accepted, and cheques sent by unsuccessful tenderers will be returned.

The Department will not pay for the unauthorized publication of this advertisement, in any newspaper.

DUNCAN C. SCOTT,
Deputy Superintendent General of Indian Affairs.
Department of Indian Affairs,
—68562. Ottawa, 5th October, 1914.
20

Miscellaneous

Sales Agents Wanted

Large United States chain manufacturers now represented in Quebec Province want to secure sales agents in Ontario, Western Canada and Maritime Provinces for all kinds of logging chain, dredging chain, etc. Apply Box 80, Canada Lumberman, Toronto. 20-22

For Sale

Fifty good lumber horses from 1400 to 1700 pounds. Also harness, sleighs, water tanks, snow plows, blankets, chains, camp stoves and all camp supplies. Can all be seen at Berriedale, near Burks Falls, Ont.
Highland Lumber Company, Ltd.,
20-23 Berriedale, Ont.

Portable Mill and Complete Camp Outfit For Sale

50 H. P. engine and locomotive boiler mounted on skids, only used three months. 54-in. circular saw mill, three saw edger, cut-off saw, shingle mill, belts, shafting, pulleys, etc. Also camp outfit, blankets, sleighs, waggons, chains, etc. Will sell right. Terms arranged or will take lumber in part payment.
C. H. ROGERS,
Care Peterborough Canoe Company,
18-21 Peterborough, Ont.

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.
The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

Progress in Wood Bending

Wood bending is almost exclusively a hardwood proposition because it involves the use of hardwood all along the route from wheel rims and shafts to chair braces, and includes all of the used articles in bent wood. In the progress of this industry many machines and appliances have been invented to facilitate the work and to reduce the percentage of breaking. Until recently most of the attention has been centred on appliances for clamping and holding and bending the wood, but now there is a new line of progress through the development of encloesd retorts for steaming or preparing wood to be bent. While this is the most recent phase of progress in wood bending, it is really in many respects the most important because it is not only a source of economy in the use of steam for bending, but perhaps contributes more than any other one thing to reducing breakage and to insuring a smooth even bend. For many generations the practice has been to boil wood in open vats or steam it in home-made wooden boxes. This has wasted much heat and has never accomplished the results it should. The new-

est idea in this line is an enclosed retort in which wood for bending can be steamed under pressure. It is a good idea, too, offering advantages enough in steam economy to pay for itself and it certainly improves the condition of wood to be bent. It is a good idea that should have been taken up with long ago and now that we have it it should receive the attention it merits from all those who have bending to do.—Hardwood Record.

Salting Saves Timber

It was found in replacing a recently burned railroad trestle along the north shore of Great Salt Lake, Utah, that the piles were sound after forty-three years of service. These were of local pine and fir, but were found to have been impregnated with lake salt. The result of this investigation started the United States forest service on its recent examinations of the use of salts as a preservative of timber. At another point on the lake some eighteen-inch piles, twenty-nine years old, have been similarly preserved with salt, which has penetrated to the centre. Timbers in the Southern Pacific railroad trestles across the lake, placed in 1902, appear as good as when driven, and have been preserved above the water line by salt spray dashed upon them. The first transcontinental telegraph line, which was built before the first railroad, extended west from Salt Lake City through the then prosperous mining camps of Eureka, Austin and others. When the railroad was built the telegraph line was transferred to this right-of-way, and the old poles were sawed off at the ground. A recent examination of the butts left in the ground in the salt desert near Fish Springs, Utah, showed that after the fifty years since the poles were cut off the butts were perfectly sound. It has been common practice in the Salt Lake valley to preserve poles by putting about seventy-five pounds of salt in the ground around the butts.

Sawdust Floor Compounds

In response to numerous inquiries regarding sawdust as a material for floor compounds, O. T. Swan, in charge of the United States forest service industrial investigations, recently wrote the following account of the material:

"The manufacture of floor-sweeping compounds requires no great outlay of capital nor extensive equipment. The primary requisites are a sufficiently large supply of raw material and a local market for the product. Though heretofore the sawdust of the so-called white woods, that is, white pine, basswood, cottonwood, etc., has been used for this purpose, I see no reason why hardwood sawdust could not be used in this country to advantage. To the sawdust are added sand, oil, and generally some cheap coloring matter. Sometimes the sand is omitted entirely, since it is likely to scratch or wear high-class floors too severely. On the other hand some floors are most satisfactorily cleaned and polished if treated with the compound containing the sand. The sand used is generally the white beach sand. The sawdust and sand are mixed with cheap lubricating oil and the coloring matter, such as vermillion, blueing or fuller's earth, is added. These ingredients are either mixed by hand or in a rotating cylinder for about half an hour until it is of a uniform color. The following is a representative formula used in the manufacture of floor-sweeping compound: Twelve parts sawdust, seven parts sand, one part oil.

"These preparations are usually sold in packages or cartons varying in weight from ten to one hundred pounds. The retail price of this commodity varies from $2.50 to $3.50 per 100 lbs., depending upon the grade and size of the package. This utilization of waste material, however, offers but limited opportunities for utilizing waste sawdust I am of the opinion that the prices now paid for floor-sweeping compounds are at a maximum, since more firms are entering the field and these prices are likely to decrease. In many localities, though, opportunities exist for building up the local trade in this commodity and the profitable utilization of a limited amount of sawdust."

Ash in Face Work

Ash is a wood that was prominent in cabinet work back in the middle ages, and it has been identified with it ever since, but at the present time it is not as prominent a feature as some of our native woods. One finds ash used in hardwood veneered doors, occasionally in furniture, and quite often in the making of pews and church furniture. There are many different kinds of ash, and there is quite a variety of figure obtainable. Generally when there is figure it is quite conspicuous, and is best suited where striking effects are desired.

Some of the ash doors compare in figure to some of the quartered oak, with heavy but not broad splash lines. In some of it the figure is subdued, and it may be used right along with oak and chestnut, and some of it is curly and presents a beautiful figure, somewhat suggestive of curly maple or birch, but more striking in the figure outline. When one can get a close-grained curly ash it makes a beautiful face veneer product for either cabinet work or mill work, and perhaps there would be more of it used if more attention was given to sorting out ash timber for the good veneer stock. A careful study of different species of ash and a little experimenting should make it practical for the veneer industry to get more out of this wood as a material for fine face veneer.—Veneers, Indianapolis.

To Make Brown Mahogany

How to make brown mahogany is a live question in a good many finishing rooms at the present time. This new shade has been rushed in so quickly and taken such a hold on popular favour that the demand for it has created quite a stir among some finishers who have found some difficulty in producing it.

Two stains are usually required to produce good results. The first is a solution of bichromate of potash. Dissolve thoroughly 6 oz. of bichromate of potash in 1½ gal. of water. Coat the wood with this and let it stand until quite dry, after which sand with fine paper to remove any fuzz. Then coat with a solution made up of ½ lb. English oak powder, 5 oz. brown mahogany powder, 2½ oz. jet black nigrosine, and 1½ gal. water.

This stain may not produce uniform colour, and some touching up may be necessary. For this touch-up work, prepare a stain as follows:—3 oz. bichromate of potash, ¼ oz. nigrosine, ¼ oz. brown mahogany powder, ⅛ oz. red mahogany powder, and 4 oz. chromic acid.

Allow the chemicals to dissolve thoroughly and then reduce small quantities of it with water to the shade required. Usually about equal parts water and stain will be required. This stain will, without any reducing, make a beautiful brown mahogany, but as a touch-up it has no superior. It will penetrate where other stains will not take hold.

The finisher who understands preparing stains may vary the shade by changing the proportion of the ingredients and may use it for matching samples that come to him from time to time.—R. K., in Veneers.

TIMBER CRUISES
Timber Estimates, Forest Surveys and Maps.
D. E. LAUDERBURN
1 Madison Ave., NEW YORK, N.Y.

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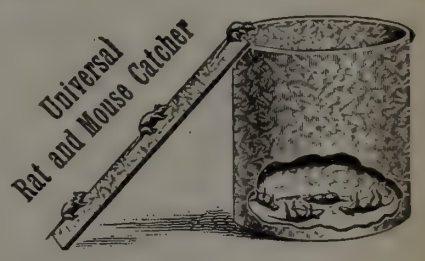

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Review of Current Trade Conditions

Ontario

It is a matter of much difficulty to report anything in the way of a feature to the lumber trade in Ontario. "Featureless" in fact is the best word with which to describe the situation. Nevertheless, there is a fair volume of trade in progress, as is evidenced chiefly by the mact that many firms which a few weeks ago thought it would be wise to keep their travellers off the road are sending them out regularly and they are reporting a sufficient amount of business to make their trips worth while. The best trade in fact, to-day, is in the country districts the good prices realized by the farmers for their products are commencing to have a beneficial effect upon the lumber trade. A couple of very encouraging rumors were heard during the past week, namely, that the International Harvester Company at Hamilton is starting its plant again, and that the Massey-Harris plant at Brantford will be starting up in the near future. The report about the International Harvester Company was published definitely in the daily press and the Massey-Harris report, we understand upon good authority, is vouched for by a responsible member of the company. Imports of southern pine have fallen off greatly since the commencement of the war. At first it was feared that the closing of the export trade from the Southern States would result in large quantities of southern pine being thrown upon the Canadian markets. The manufacturers of southern pine, however, probably realized that the prices to be obtained in Canada for their stock during the past month or two would be so low that they could not ship to Canada without a much greater loss than they were prepared to accept.

Reports regarding the probable output of logs in Ontario during the coming winter continue to indicate a reduction variously estimated, and amounting according to some estimates, to 40 per cent. The reduction however, will not be so great as was predicted a month ago.

Eastern Canada

The lumber business at Montreal continues very quiet. Locally, the volume of trade is small, as the building season is nearing its end, and very little new work is appearing. A somewhat better feeling is reported, however, in connection with the outlook for next spring, as many lumbermen feel that, if the war is over by that time there will be a heavy demand for lumber and for other Canadian products. Reports from Quebec province mills indicate that there will probably be a considerable decrease in the output of logs during the present winter. Exports to Great Britain continue on a steady and fairly extensive scale. There is plenty of space available on vessels for this purpose. Total shipments for the season, however, will be smaller than last year.

The demand for spruce at Boston continues quiet and latest reports indicate slightly weaker prices, varying from 25c to 50c lower than a fortnight ago. Operators have found difficulty in securing financial assistance from the banks, but some improvement is reported in this direction and it is expected that this will help the situation in the near future. Dimension, 8 ins. and under is still being quoted at $23 as the bottom price, by a number of large concerns, but others are reported to be considering bids at $22.50. Other dimension prices at present are about as follows: 9 in., $23.50 to $25; 10 in., $24.50 to $25; 11 in. and 12 in., $25.50 to $26 . Random is reported to have eased off on account of over production and small demand. For 2/4 $21 has been taken, but some mills are insisting on $21.50. Some of the other sizes are quoted as follows: 2/3, $20 to $21; 2/5, $19 to $19.50; 2/6 and 2/7, $20 to $20.50; 2/12, $23.50 to $24. Car load lots of spruce covering boards 5 in. and up wide, 8 ft. and up long are being sold at $21. Some choice boards are bringing 50c. more. At New York the demand for spruce has dropped considerably and prices are irregular. A fair demand continues at Boston for 1⅝-in. lath and prices, when promptly delivered, are $4.10. The demand for 1½-in. is not quite so strong, but the price remains at $3.75 to $3.80. The demand for shingles is dull. White cedar extras are bringing from $3.40 to $3.50, clears $3.85 to $3.90 and second clears $2.60 to $2.75. Red cedars are not so active as the whites. Some of the above makes however are being held at $3.65.

United States

The disposition to go slow in connection with business in the United States is still noticeable in all parts of the country, as much in the lumber business as in any other line. Everyone feels convinced that a period of exceptional prosperity is certain somewhere in the future, but the present chaotic situation in Europe makes it impossible for anyone to estimate definitely when this change will come about. In the lumber business throughout the country, trade continues on a basis of present requirements, and speculative buying is absent. Retailers, and the large consuming factories are keeping their stocks as low as possible, so as to avoid carrying charges and to prevent loss on account of price fluctuation. Although there has been a great deal of curtailment on the part of manufacturers, the market is one which favors the buyer. There is a fair demand for building material to be used in factory contsruction and the upkeep of railroad equipment, and these two sources of demand seem to be the present backbone of the business. There is nothing new to report in connection with yellow pine, which is about steady, although there is a little talk of stronger prices in some markets. There has been an extensive curtailment in production among southwestern mills and this is helping the market to some extent. It is reported that the supply is not excessive and that stocks are showing a tendency to become broken. Some operators have cut the price of dimension by 50c, but other prices, as a rule, are holding steady. On the Pacific Coast, conditions continue unchanged. Many of the manufacturers closed their plants entirely. In western Washington one-half the mills have closed down and the others are running on reduced time. Stocks are still plentiful.

The demand for northern pine indicates that retailers are merely buying what they require for fall trade and are not laying in any stocks for probable future requirements. Shipments from the pine mills are only about half their normal size. Stocks in Minnesota and northwestern Wisconsin are plentiful and there is a large supply of dry lumber. There is considerable talk of reducing the output of logs during the present winter. Trade in the Saginaw Valley is slow, but prices are unchanged. Production of northern hemlock is extensive, much beyond the shipments. The demand is light, as building has dropped off considerably. Stocks of hemlock in eastern retail yards are smaller than usual. The hardwood trade continues in a rather unsettled condition. Some manufacturers think there is considerable improvement, but the volume of trade is still small. Extensive stocks are reported from most northern points. Plain and quartered oak are moving at a fair rate.

Great Britain

The volume of business in the lumber trade in Great Britain is large enough to bring a fair amount of satisfaction to lumbermen, when they consider the pessimistic expectations of only a few weeks ago. The actual trade in progress in London is more for Government requirements than for general purposes, but even so, it is a matter for satisfaction that deliveries at London docks during the week ending September 26th were considerably over 5,000 standards, and, for the first time for many weeks were in excess of the deliveries during the corresponding week of last year. A few weeks ago it was scarcely to be expected that so good a showing would be made. On the other hand it is certain that the replacing of stocks sold will be effected at a considerable increase in cost. Arrivals are reported to be coming pretty freely from Sweden and the White Sea. The Government demand at present is extensive, being largely for the erction of accommodation for recruits and prisoners. Price reports are erratic. Differences of so much as 10s. on identical stocks from Sweden are common. Apparently every man is a law unto himself so far as prices are concerned. On the whole however, it seems certain that future stocks will cost buyers much more than those they have already purchased. An encouraging evidence of the increasing confidence of the Government in the military situation is the fact that they have announced the impending early removal of the moratorium.

A decided improvement in the lumber trade is reported from Liverpool, in all cases except American hardwoods. For once, according to recent reports, spruce is a profitable investment and stocks are almost cleared out. Fresh arrivals meet with a strong demand, and higher prices still are expected. It is now considered probable that the output of logs during the coming winter wil be on a much smaller scale than usual. In Manchester, no important change in trade conditions is reported, although the general feeling is more confident among both buyers and sellers. Spruce continues firm. Railway companies have recently sent out enquiries for timber.

At Glasgow the timber trade is quiet. There is a steady call for packing case material and a number of transactions are reported for forward delivery at remarkably high prices when compared with the price for Canadian third and fourth yellow pine deals. The demand for pine has been poor for some time past, but as soon as trade activity is renewed, improvement in this respect is looked for. Recent shipments of Oregon and Virginia clear spruce have sold readily at advanced prices.

View of Mills in Sarnia.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Mining Timber Trade May Become Permanent

Ottawa, October 8 (Special to the Canada Lumberman): If Canadians can supply Great Britain with pit props at the right price during the war they may find that the market will develop from a temporary to a permanent one. This intimation has been given to officials of the Trade and Commerce department by the members of the British Commission, appointed by the British Board of Trade to visit Canada and Newfoundland for the purpose of obtaining information pertaining to pit props.

This Commission recently spent part of one day in Ottawa. They came here for the specific purpose of seeing officials of the Trade and Commerce Department. The members are: Messrs. W. Windham, representing the Board of Trade; David Harrower and Norman Cumming, representing the Federated Timber Trades; Ridley Warham and Mr. Warrington, representing the Federated Collieries, and R. Sommers, Secretary.

They are not visiting Canada for the purpose of making contracts with any lumbermen, but solely to gather information regarding the quality and quantity of pit props available and to report to the Board of Trade, which is really the Department of Trade and Commerce of the British Government.

The members of the Commission say that the war has closed the Baltic Sea. It is from the forest areas in close proximity to the Baltic that Great Britain has hitherto drawn its supply of pit props. A new market must now be found, and British sentiment inclines to Canada. If Canada can guarantee the supply at a reasonable price while the war is on, a permanent business may result. The Commissioners point out that if lumbermen expect to handle these props at any fair margin of profit they must get them aboard ship without much expense, so that lumbermen between Ottawa and the Rocky Mountains could hardly expect to handle this product profitably on account of the long railway haul to the nearest seaboard shipping point.

In Gaspe, in the Saguenay district, in some parts of the Maritime Provinces, in Anticosti and Newfoundland, there is a vast quantity of timber that is just the thing for pit props and the limits have the advantage of being near the deep water trade route. British Columbia can also supply an illimitable quantity, but whether lumbermen there could get them over to England and put them on the market at a price that would meet competition is doubtful, owing to the long rail or water haul. Around Mobile, Alabama, there is plenty of this lumber and lumbermen there are expected to enter into competition if possible. The present price of pit props in Canada is a little under one cent per foot.

Since the Trade and Commerce Department advertised a few weeks ago that Great Britain was making urgent inquiries with regard to pit props, the Department has been literally deluged with letters of inquiry from all parts of Canada. These props must be from four to six feet long and over a million are urgently needed, chiefly fir, 4 feet to 7 feet long, 5 inches to 6 inches diameter tops; also straight poles, fir, spruce or larch, 20 to 30 feet long, 5 inches to 9 inches.

The Commissioners are now in Newfoundland. They may visit British Columbia before they return to England.

A large quantity of timber is used in Canada annually in the form of mining timbers. The only statistics available upon this subject are those which were published for 1910 by the Forestry Branch at Ottawa. It is shown that during that year round and sawn timbers for mining purposes were used in Canada to the extent of 52,848,000 linear feet of round timber, worth $523,339, and 22,305,000 board feet of sawn timber which cost $303,998. The varieties of woods used for round timbers and their quantities in linear feet were as follows:—Douglas fir, 28,268; spruce, 14,417; Jack pine, 4,455; balsam, 2,710; hemlock, 1,172; tamarack or larch, 893; pine, 720; birch, 366; poplar, 54; cedar, 23; maple, 1; beech, 1. The average cost per thousand linear feet was $9.90 and the individual average costs per thousand linear feet were as follows:—Douglas fir, $7.03; spruce, $12.46; Jack pine, $14.98; balsam, $9.78; hemlock, $13.39; tamarack or larch, $16.72; pine, $14.21; birch, $13.22; poplar, $15.70; cedar, $48.12; maple and beech, $11.00.

Referring to the preservation of mining timbers by chemical treatment the bulletin says that this has not yet been adopted by the mining industries of Canada. In many localities however, the distances required to transport mining timbers are becoming greater, poorer qualities of woods have to be used and the annual cost of the upkeep of mine timbering is becoming greater. In the United States much has been done in the treatment of mine timbers and it has been proven that a treatment of creosote or zinc chloride decreases the destruction due to decay, fire and insects. This increases the life of the timbers and decreases the annual cost of replacing mine timbers. Timber used in mines has, on the average, a shorter life than wood used for any other purpose. The surroundings in a mine are very conducive to rot, which, after a period of three to five years, causes the timber to break, crumble and become useless. Experiments have been conducted in United States mines with a row of untreated and treated mine props alternately placed. In one instance, after 18 months, every untreated stick was weakened by decay and broken, while the treated props were sound and useful. From various practical experiments of this kind with different species of wood important results have been obtained.

Douglas fir has an average of five years life when untreated. Treated, it lasts twelve years. Hemlock, lasting as a natural wood five years, doubles its term of life when treated, as does tamarack. Spruce is one of the species which decays quickest when untreated, lasting only three years. If treated it will last twelve years, thereby increasing its life 300 per cent. To sum up, wood preservation not only prolongs the life of durable timbers, thus decreasing their annual consumption, but also permits the substitution of inferior species, whose use considerably reduces the drain upon the more desirable kinds.

English Commissioners Consider Price Very High

The English commissioners who came to Canada to enquire into the possibility of securing mining timbers to replace the supply formerly secured from Europe, visited Montreal and Ottawa recently and announced their intention also of investigating the situation in Newfoundland. It is reported that they find they can secure an ample supply of mining timbers in Canada, but that the prices are considerably higher than those which have formerly been paid for Russian and Norwegian timbers. New Brunswick would be in a specially favorable situation in connection with this trade, on account of having an all-the-year-round port from which to ship stocks. Timber owners in New Brunswick state that they could supply the English demand for mining timbers without difficulty.

Mining Timber May be Exported to England

On account of the enquiries being made in Canada by the Commission sent out from England to look into the possibility of securing supplies of mining timber for Great Britain, to take the place of the supplies which formerly came from Europe, the Government of Quebec has passed an Order-in-Council, dated September 24th, exempting from the operation of article 13 of the Crown Lands regulations during the present season of navigation, all coal mine props shipped to England, on condition that, before shipment is made, a sworn statement must be furnished to the Department of Lands and Forests, giving the quantity of such timber shipped, the designation of the ship, the address of the consignee and an assurance that the timber is exclusively intended for the use of coal mines in England. A corresponding sworn statement must also be furnished by the consignee to Hon. Dr. P. Pelletier, the agent of the province of Quebec, at London, England. Article 13 of the regulations, which is thus partially suspended, is the article requiring that timber cut from Crown Lands in the province of Quebec must be turned into some manufactured product before being exported.

The English Import Trade Situation

In view of the importance of the timber situation in Great Britain, resulting out of the European war, a few remarks recently received from a correspondent in England, regarding the trade from Baltic and White Sea ports is of much importance to Canadians who export to the Old Country. The writer says:—"A shortage of the cheaper kinds of timber would have been a serious matter in this country, in view of the large quantities that are in requisition for the erection of temporary buildings and the carrying out of temporary works of varied character. Germany has declared Swedish deals, battens, boards, staves, and packing case boards to be non-contraband of war, provided that they are carried in neutral bottoms. Finland, which exports a vast amount of timber to England, is of course Russian, and although

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WE CARRY THE LARGEST AND BEST ASSORTMENT OF DRY SPRUCE IN CANADA

Russia quickly removed her prohibition against the exportation of timber, sufficient awkward facts remain to reduce the customary shipments. A great quantity of timber of the cheaper kinds comes also from Archangel or other White Sea ports, and the trouble there now (according to one who is an authority on the matter) is the difficulty of loading, on account of the shortage of labor arising from the calling up of conscripts. 'A friend of mine,' (he writes) 'sent a boat out at the commencement of the war, but it was returned empty because of the prohibition. He had £12,000 worth of Archangel deals and boards on order, which would have been very profitable to him during the coming winter, but he told me that he had since cancelled the order because of the difficulties of loading. If it could not be loaded before the White Sea had frozen (and the White Sea ports close earlier than any other timber exporting ports), he was afraid they might take fire before they could be loaded per 'first open water' in the spring. They have very frequent fires in Archangel on account of the tremendous quantities of timber stocked there, and the difficulty would be for him to prove that it was not his timber that got on fire. It is a very difficult thing to prove after a fire that it is or is not your timber that has been burnt, because there are thousands of other stocks of exactly the same size all piled together.' The same authority is of the opinion that if the price of Baltic and Archangel timber goes much higher during the war, American spruce and cheap pitch pine will have to take the place of deal."

Montreal Trade Expects Improvement

Montrea, October 8 (Special to the Canada Lumberman):—The approaching termination of the building season, with little new work coming forward, is responsible for further contraction in the lumber business. At this time of the year there is generally a falling off, but the European situation has accentuated the position. Several lumbermen are inclined to blame the banks for withholding assistance, thus preventing a certain amount of business which could have been carried on if the necessary cash had been forthcoming. In the case of several important buildings, operations were suspended at the first sight of trouble, and in other instances, plans for erecting structures were postponed.

There is however, an optimistic feeling as to next spring. Many believe that, providing the war is over, there will be an enormous demand for lumber and other Canadian commodities. The country is passing through a period of re-action which set in after a long upward trade movement, and next year should witness a swing of the pendulum in the right direction.

Reports reaching this city are to the effect that there will be a considerable reduction in the cut of logs made in the province of Quebec during the coming winter. There is abundance of labour, with rates on a reduced scale.

Shipments to Great Britain are proceeding as usual. There is now plenty of space for all requirements, and if this continues, a considerable amount of leeway in exports will be made up. The total shipments of the season will, however, show a substantial decrease as compared with last year. Next season, it is anticipated, will see a welcome revival in our oversea business. It is almost cetrain that, owing to war conditions, the supply from the Baltic will be on a small scale and that Canada will have to make up the deficiency, especially in spruce.

The ground wood market is quiet, but the mills which have stocks on hand, or whose production is not sold, are not inclined to do business at present quotations, believing that higher prices will prevail later on. Water conditions in Canada and the United States are very poor.

Bleached sulphite has reacted slightly from the recent high values. For unbleached, Scandinavian mills are asking very high prices or are refusing to quote for future delivery. Advices from Christiania, Norway, are to the effect that the Scandanivian pulp mills have been unable to secure supplies of wood from the Baltic.

For the month of September the ordinary building permits show a heavy decline, being only $501,514, as compared with $1,999,524 in the corresponding month last year. The city building department have however, included the work carried out by the Harbour Commissioners for the current year, bringing up the total for the month to $4,041,514. Without this there would be a decrease of $3,156,455 for the nine months, but taking the harbour building into the total, there is a gain for the year to date of $393,545, the totals for 1913 and 1914 respectively being $15,816,146 and $16,209,691.

New Brunswick Mills to Operate in Full

The United States Consul at St. John, N.B., in a recent report to his government says:—"Besides the natural trade depression caused by events in Europe and the resulting violent fluctuation in wholesale prices there followed another serious discouragement to commercial activities throughout this district by the report that the lumber concerns had decided to make no log cuts during the approaching logging season. Want and suffering would have been the result. It would have meant idleness during the succeeding 12 months for 12,000 to 15,000 men usually employed in the forests and at the mill yards and mills. Plans, however, have been made for the usual logging activities during the next winter and spring, and all the mills will run to full capacity during 1915. This also means a resumption of normal business at the stores.

St. John Transatlantic Shipments

Transatlantic shipments of wood goods from St. John, N.B., during September and during the nine months ending with September, for 1914 and 1913, are reported by W. Malcolm MacKay, St. John, as folows:—

Ports	September, 1913 Spruce	September, 1913 Birch Plank	September, 1914 Spruce	September, 1914 Birch Plank
Manchester	3,295,652	16,046	1,048,126	.....
Channel	.....	.....	3,568,919	668,811
Glasgow	.....	.....	243,579	.....
London	2,240,665	458,452	1,615,006	698,958
Other Ports	.....	.....	775,421	.....
Ireland	735,305	.....	1,007,243	.....
Total	6,271,622	474,498	8,258,294	1,367,769
Shippers				
W. Malcolm Mackay	2,192,017	297,044	2,740,453	668,811
J. E. Moore & Co., Ltd.	1,077,177	.....	4,409,618	598,958
Geo. McKean	2,637,373	107,146	1,108,223	.....
Other Shippers	365,055	70,308	.....	100,000
Total	6,271,622	474,498	8,258,294	1,367,769

Ports	Nine Months, 1913 Spruce	Nine Months, 1913 Birch Plank	Nine Months, 1913 Birch Timber	Nine Months, 1914 Spruce	Nine Months, 1914 Birch Plank	Nine Months, 1914 Birch Timber
Liverpool	12,990,759	178,505	463	8,855,530	574,100	976
Manchester	19,393,678	297,135	....	12,048,103	415,764	131
Channel	5,190,081	.....	....	6,545,560	668,811	....
Glasgow	8,092,490	490,978	902	7,721,230	.....	304
London	9,185,748	3,995,348	224	5,312,694	5,459,673	....
Other Ports	.....	.....	....	7,268,600	.....	....
Ireland	11,536,709	.....	....	10,669,251	20,782	....
Continent	.....	.....	....	979,149	.....	....
Australia	.....	.....	....	110,000	.....	....
South Africa	.....	.....	....	2,463,823	.....	....
Total	68,701,625	4,961,966	1,589	61,973,940	7,139,130	1,411
Shippers						
W. Malcolm Mackay	30,831,704	1,450,639	225	31,459,283	1,548,443	52
J. E. Moore & Co., Ltd.	16,070,247	415,403	18	14,246,673	980,115	....
Geo. McKean	14,865,446	2,226,312	1,322	12,217,808	2,907,405	1,359
Other Shippers	6,934,228	869,612	24	4,050,176	1,702,157	....
Total	68,701,625	4,961,966	1,589	61,973,940	7,139,130	1,411

Quebec Cullers' Report

The following statement of timber measured and culled is furnished by the Quebec Supervisor of Cullers' Office, under date of October 6th:—

Waney white pine	1,016,640	216,600	591,440
White pine	1,760	7,560	.....
Red pine	12,200	960	1,040
Oak	87,000	115,840	337,360
Elm	275,520	211,520	305,240
Ash	520	1,000	680
Birch and Maple	38,640	47,680	50,800

Bradstreet's Report More Encouraging

The Canadian edition of Bradstreet's, in its issue for October 3rd, referring to Toronto reports, says that the demand at wholesale houses is slow, particularly from those retailers whose trade depends largely on the building and manufacturing branches of the industry, and money with them is scarce. On the other hand, from the agricultural centres, almost uniformly, come exceedingly satisfactory reports, and collections are generally pretty good. Builders' supplies are in dull demand. Money is scarce. Wholesale men however, maintain their feeling of confidence in the future. In the west, conditions are reported to be decidedly on the mend. Referring to reports from St. John, N.B., Bradstreet's says that business has now pretty well recovered from the general dislocation immediately after the declaration of war. The lumber trade is fairly active, Canadian spruce being in demand by Great Britain as the supplies from the Baltic are now unobtainable. The advance in freights, however, has offset this advantage to a certain extent. Industrial conditions in general are very near normal.

The Grand Rapids Veneer Works, Grand Rapids, Mich., have secured a contract with J. R. Eaton & Sons to install a battery of eight fireproof box kilns of their latest type. The contract was given after an exhaustive time test made by Mr. Eaton, during which he covered the general field in Canada, and also after extensive personal enquiries in the United States.

CAMP SUPPLIES

We have a splendid stock of Prunes, Dried Peaches, Apricots, Apples, Raisins, Currants. In fact everything in the eating line suitable for the Camp, and we would appreciate a line from you asking for our prices which we can assure you are as low as the present condition of supplies will warrant, and very much lower than we could offer if we were compelled to go into the market and buy today.

H. P. ECKARDT & CO. Wholesale Grocers

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Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND USE—COMMENT AND VIEWS ON AN IMPORTANT BRANCH OF THE TRADE.

The Glue Side of Veneering

When we consider that without glue there would never have been any veneering industry we can realize something of the importance of glue in the business of veneering. The term glue is meant to cover all of the cementing substances used for fastening wood together. Though glues were discovered and used in the early days of civilization and have always been a factor in joinery, yet not much importance was given this phase of the business until the built-up ply wood came into use. It was this which led to consideration and closer study of the glue side of the business.

In the earlier days of the work glue was looked upon as a mysterious foreign substance that the woodworker was not supposed to know much about except that when heated and melted and applied to wood it would hold it together. When the veneer industry had developed to the point of using enormous quantities, however, the cost of this item was such a factor that it led to a search for means of reducing it. The matter of quality came in about that time. It was found that sometimes glue failed to perform its duty and work went bad. Sometimes this was because of unwise efforts to save cost either through the use of too small a quantity or from buying an inferior glue or making up an improper mixture. Anyway, investigation of the subject soon showed two factors to consider—the factor of cost, and the factor of safety or quality.

Up to this stage of the development no one but the glue people seem to have made a careful analytical study of glue. It is doubtful if even the glue people had concentrated enough attention on the matter of careful and thorough analysis. However that may be, the veneer industry eventually created quite a stir in the matter of gluing. Important users made careful studies of the glue used. This developed appliances as well as formulas for testing and grading and heating glues.

One of the great discoveries of this period was that many people had been injuring the quality of their glue by overheating it. Experiments showed that glue could be cooked and damaged even when enclosed in a water-jacketed vessel. The experimenters soon sounded a warning against excessive temperature in preparing glue. The first ones brought it down somewhat from the original cooking temperature, and by and by these were scaled down still lower until finally there was a pretty general agreement among authorities on the subject that the temperature in the preparation of glue should be kept somewhere between 140 and 150 degrees F.

It was discovered, also, that freshness was a quality; that glue kept heated and mixed with water deteriorates rapidly in value, consequently to get the right results everything should be cleaned up at the end of the day and only fresh stock used in glue work.

During all this time there was a more or less persistent casting about for other substances than the standard glue product to use in cementing wood together. The first outcome was the use of casein, which was taken up extenisvely but retired after a season or two—just why is not clear. Some say it was worth more for other purposes, others that it was uncertain. Sometimes it would give excellent results but at other times it would fail, and this uncertainty caused it to lose favor.

The casein product closely resembled in appearance and was used in practically the same manner as the regular glue, but with the passing of casein there came other products with their own peculiar methods of preparation and application, differing in some instances from that of standard glue. The most important of these, the one receiving pretty wide attention at the present time, is a product known as a vegetable glue. One of the noticeable differences between this and standard glue and its use is in that the vegetable glue can be and is commonly used cold.

This vegetable glue product has become important in veneering and is today probably the most formidable competitor of the old standard glue. Among the other glues are silicate of soda and some special formulas of secret compositions that seem to bear relation to what is known as the Russian idea in veneer work.

Silicate of soda or water glass is dissolved by heat, and when reduced to liquid may be kept for some time and applied cold. It is used as a principal base into which other ingredients enter in varying proportions to make up the glue mixture. There are some branches of the built-up lumber industry into which this product enters quite extensively—that of making two and three ply stock for packing boxes and some plain panel work. It does not seem to have found favor in the furniture trade or in fine cabinet work. Just why, it is a little difficult to understand. Those who have made a study of it simply pass the subject by with saying that it serves very well for certain purposes in making cheap built-up lumber and is a comparatively inexpesive glue, but does not find favor in the finer grades of work.

What is known as the Russian method was explained at a recent meeting of veneer and panel manufacturers, but the explanation had to do more with the handling and the time of using the veneer and the qualities of the built-up product than with the nature of the composition constituting the glue. It seems that the practice in Russia is to take veneer when it is fresh and green and glue it up under pressure and heat, where it sets in a very short time, and dry it out afterward or accomplish part of the drying in the process of gluing. It seems that the glue mixture enters into the wood, replacing the sap substances or the moisture at least, and becomes in effect a waterproofing substance as well as a cement to hold the wood together. There is lacking in connection with our knowledge or this, two important things. One of these is the composition of the glue itself. We have a number of secret formulas in use in this country which suggest the Russian method, and claim waterproofing qualities, but we are lacking in definite knowledge as to the composition and nature of the material.

The other thing on which we lack information is, what is done about shrinkage when green veneer is crossed and glued up? Samples of panels claimed to have been put up by the Russian process have been examined by the writer. These seem to hold together all right and they closely resemble samples of waterproof secret process glue work that has been done in this country. In each case, however, while the glue held and the product seemed to resist moisture, there was checking of the face, likely due to shrinkage, and from all this the tentative deduction is made that it, like the silicate of soda proposition, may be adaptable to certain work and for the purpose of making up box panels and common panels of various kinds, but not exactly the thing for fine veneering.

Here is a point where the vegetable glue differs materially from some of the others. The vegetable glue is entering into actual competition with standard glue for fine veneering and cabinet work generally. In other words, it seems adaptable to all manner of uses, whereas some of the others are adaptable to certain uses only.

From the foregoing it will be seen that the glue side of the veneering business has been receiving a fair share of attention. The relative merits and the prospective uses of the various offerings will adjust and take care of themselves in the course of events. They deserve continued attention, too, for glue is not only a big item in the use of veneering, but is an essential factor to the life of the industry itself.

Glue plays an important part in joinery of all kinds, and in the cabinet work of today there is much more of the joinery held together by glue than is held by nails, screws, pins or other mechanical devices. We might devise other ways of holding frame work together in cabinet making, but when it comes to veneering the real life of the industry depends on glue. Therefore, the glue side of veneering is a vital one and it is deserving of close and continued study.—C. R. O. in Hardwood Record.

Birch Interiors

An attractive publication entitled "Birch Interiors," has just been published by the Rotary Birch Club, Wausau, Wis., and the Northern Hemlock & Hardwood Manufacturers' Association, Wausau. This book, which, from the standpoint of typography and illustration is exceedingly handsome, contains much valuable information that will be helpful to architects and builders. It is especially replete with unique and attractive suggestions to the home builder. The numerous illustrations include pictures of interiors of pretty homes in which birch trim has been used. These pictures show homes ranging from those costing many thousands of dollars to the more modest but cozy bungalows. Illustrations are also given showing the kind of houses in which birch can be used to advantage in exterior work. The several subjects into which the book is divided are The Wood, Halls and Stairways, Living Rooms, Dining Rooms, Varied Uses of Birch, Birch Doors, Stains, Birch Furniture, Birch Finished Residences, and Where to Get Birch. The work of compiling this handsome booklet was chiefly done by R. S. Kellogg, secretary of the Northern Hemlock & Hardwood Manufacturers' Association. A copy will be mailed to any one desiring who applies to either of the organizations mentioned

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British Columbia's Timber Resources

A report has been issued by the Dominion Government, of the proceedings of the select standing committee on forests, waterways and water powers, during the third session of the present parliament. The committee, which was appointed early in the present year, held two sittings. At the first sitting, an interesting address was delivered by Sir Richard McBride, premier of British Columbia, who spoke of the natural resources of the western provinces, and of the work of the government in conserving them. At the second sitting, evidence was given by Mr. H. R. MacMillan, chief forester for the province of British Columbia, who gave a description of the forest resources of the province and the work of the forestry branch in connection therewith. Mr. MacMillan's remarks were of a practical and definite nature, giving the committee an excellent idea of the work done. Most of the information which he gave has already been published in the Canada Lumberman.

Speaking of the timber area of the province, Mr. MacMillan said. "There are south of the 65th parallel, roughly, about 250,000,000 acres of land, at least 80 per cent. of this land is timbered; probably only 15 or 20 per cent. of it is covered with timber which is now accessible and available to the present-day lumbermen. But there is no doubt but that there are at least some 350,000,000,000 feet of merchantable timber in the southern portion of the province, not including any territory more than 150 miles north of the Grand Trunk Pacific Railway. This merchantable timber will, at the present rate of cutting, last probably 100 to 150 years, even allowing for quite a loss by forest fires. In addition to the timber land which grows merchantable timber, there are immense areas, included, of course, in the 250,000,000 acres I mentioned, which have been burned over during the last fifty or sixty years, and on which there is at present absolutely no merchantable timber, but it is all growing up with young timber, which, if protected from fire will, of course, be mature before there is any call upon it for industrial purposes."

After outlining the various classes of timber found in the province Mr. MacMillan said:—"I have no doubt but that the timber possibilities of British Columbia; by the time the population exists in Western Canada to use the timber, the capital has been brought into the country to manufacture it, and the transportation facilities provided to handle it; will be able to sustain indefinitely an annual cut of five billion feet. At present the annual cut for all purposes is about two billion feet; about two-thirds is manufactured into lumber, and the remainder into other products. An estimate was made last year of the value to the province of the timber industry. On a very conservative basis, even at the low prices which have been realized during the last year or two, there has been brought into the province at least $30,000,000 from the manufacture and sale of timber products."

Newfoundland's Lumber and Pulpwood Output in 1913

There were 21,000 more logs cut in Newfoundland during 1913 than in the previous year, the total number being 1,504,000, from which it is estimated 46,000,000 feet of lumber (principally spruce) were produced, an increase of about 5,000,000 feet over 1912. The lumber turned out was valued at $600,000 and consisted of 24,500,000 feet of boards, 7,225,000 feet of scantling, 1,241,000 feet of heading, 673,000 feet of box material, 106,000 palings, 6,700,000 spruce laths, and 9,100,000 spruce shingles. In addition to the lumber, 135,000 cords of pulp wood were cut, an increase of 11,000 cords over 1912. The men employed in the forests and sawmills numbered 3,500. There were 15 lumber mills working in conjunction with the fisheries. For the fiscal year 1912-13 there were shipped 413,000 feet of lumber valued at $6,306, as against 504,000 feet, valued at $8,215, in 1912. Canada took 272,000 feet and St. Pierre 141,000 feet. The total number of laths exported was 1,365,000. The steady decrease in lumber exports from year to year is due to an increased consumption of pulp wood, and to local requirements warranted by a steady industrial development other than that of the fisheries. The paper produced from this pulp wood was of both news and wrapping grades of good quality, and it found a ready market. The output for the fiscal year 1912-13 amounted to 44,424 tons, valued at $1,990,229, as compared with 26,821 tons, valued at $1,201,656, for 1911-12. All of the paper excepting a small quantity used locally was exported to England. The pressed ground-wood pulp output for the same period amounted to 51,487 tons, valued at $436,352, as against 42,102 tons, valued at $361,149, for 1912. England took 35,619 tons and the United States 6,483 tons.

Mr. James A. Conners, of James W. Sewall's office, Old Town, Maine, has taken a crew of men into northern Aroostook County, Maine, on a detailed township survey and timber estimate. Mr. O. W. Madden of the same office is cutting about a million feet of lumber for Mr. Sewall on the Passadumkeag River watershed.

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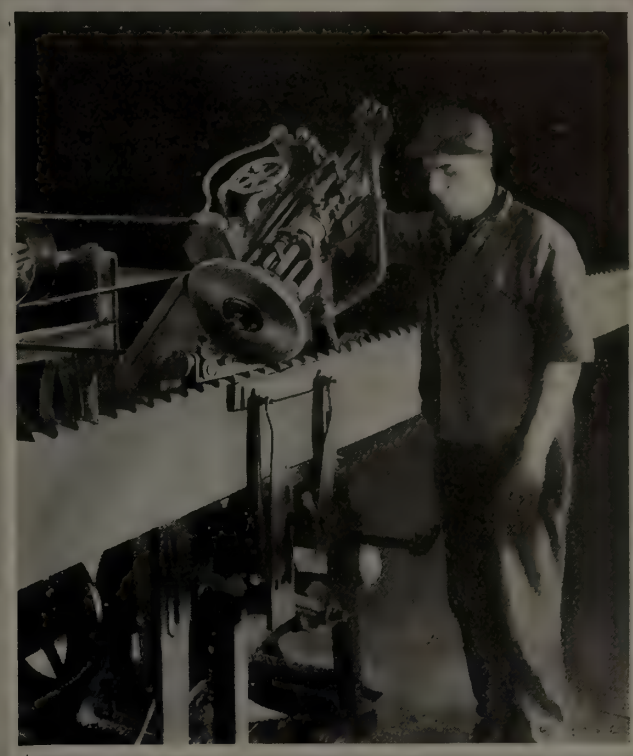

A SAW GUMMING WHEEL should hold its shape so as to insure uniformly shaped saw teeth and perfect gullets—poorly formed teeth set up uneven strains resulting in cracked saws or the producing of rough lumber—then there is the wheel loss to consider if you are continually dressing the wheel to shape.

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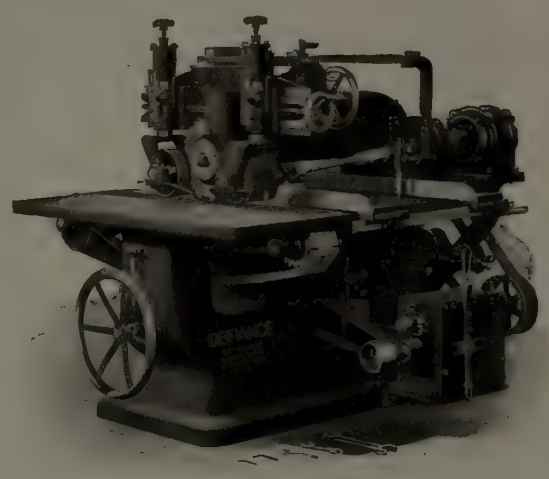

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EDGINGS

Ontario

The lumber business carried on at Mount Brydges, Ont., by Mr. Monger has been sold to Wm. Longfield, of Windsor, Ont.

The Hawkesbury Board and Paper Mills, Hawkesbury, Ont., will shortly commence work upon the erection of a paper and board mill. Mr .T. E. Helmick, 40 Herald Building, Montreal, is one of those interested in the company.

The timber limits at Ha Ha Bay on the Saguenay River, formerly owned by the Battle Island Pulp Company, of Fulton, N.Y., have been purchased by the Ontario Paper Company, of Thorold, Ont., the figure being around three hundred thousand dollars. It is understood that twenty-seven thousand acres are freehold and one hundred thousand acres are leasehold land.

The Parry Sound Barrel and Manufacturing Company, Limited, of Parry Sound, Ont., which was recently incorporated with capital stock of $500,000, will manufacture boxes, cases and crates of all kinds and wooden ware fibre products such as toothpicks, clothes pins, etc. The incorporators are Charles L. Sanford, Wm. A. Leyda, and John P. McKelvie, of Toronto, John A. Johnson and T. C. Algar, all of Parry Sound.

The R. Laidlaw Lumber Company, Sarnia, Ont., have purchased the business long conducted at Sarnia, by Mr. E. A. LeBel, taking over his entire stock of lumber and plant. They have also installed a complete baling equipment for taking care of surplus shavings. These will be baled under heavy steam pressure, and as they separate their sawdust from the shavings, their baled shavings will be of choice quality. They intend to sell them locally and in carload lots. The company have also under construction an addition to their shed capacity, 130 feet by 20 feet, and an addition to the manufacturing portion of their plant.

Eastern Canada

The sash and door factory of Mr. I. Allard, Des Erables Street, Montreal, has been very badly damaged by fire.

A report from Conception, P.Q., states that the Besselle lumber mill has been destroyed by fire, and that a large quantity of lumber in the yards has been burned.

The Cascapedia Booming Company has been incorporated in the province of Quebec with head office at New Richmond, and authorized capital of $50,000. Those mentioned in the letters patent are Angus McLean, Montreal; S. B. Bond, Chaleurs, P.Q.; R. L. Montgomery and M. H. Montgomery, New Richmond, P.Q.; and Hugh McLean, Buffalo, N.Y. The company is given power to construct works for improving the Grand Cascapedia River for log driving, holding and sorting purposes.

The shareholders of the Laurentide Company, Limited, have authorized an issue of four million dollars in thirty-year bonds. The last issue of capital stock by this company was made for the purpose of providing a portion of the funds necessary for the construction of the new power plant and increased paper plant. The present issue is for the purpose of providing the remainder of the money necessary to complete this work. This issue will provide also for the redemption, at maturity, of the existing issue and will leave a considerable sum in the treasury for possible further requirements. The new issue will be disposed of only as and when required for the above purposes.

On October 6 the Montreal Trust Company, Limited, sold by public auction, at the Court House of La Malbaie, P.Q., the property of the East Canada Power and Pulp Company, in liquidation. There was a large attendance, American interests being strongly represented. The timber limits, of approximately 392 square miles, on the Riviere de la Malbaie, and lands on the east side of the harbour at Murray Bay formerly belonging to the Laferriere Lumber Company, were sold for $108,000 to Mr. A. E. Bradbury, of Ottawa, who was acting for other interests. Mr. Bradbury also purchased the pulp mill, plant, and certain land rights, for $34,000. A quantity of pulp wood for sale was withdrawn. The sale of the pulp mill and machinery was made under reserve of rights of ownership claimed by two companies who supplied certain machinery.

The Upper Fraser River Lumber Company, which has head offices in Montreal, has been reorganized. The capital is $2,500,000 6 per cent. non-cumulative participating shares, $750,000 common shares and $750,000 first mortgage 6 per cent. 25-year bonds. The bondholders have agreed to exchange their bonds at par for an equal amount of preferred shares, plus an amount representing all arrears of interest. Holders of existing common stock are entitled to an allotment of fully-paid ordinary shares equal to 10 per cent. of their holdings, the balance being held in trust. The company has completed the erection of the frame of its permanent mill at Dome Creek, B.C., and has built stables, bunkhouses, etc. Everything is ready for the installation of the machinery, and 100,000 feet of logs are on the skids ready for the saw. A spur will give connection with the Grand Trunk Pacific Railway.

Western Canada

Lang & Roddis, who have been operating a small sawmill at South Sumas, on the line of the B. C. Electric Railway, contemplate a larger mill on the same site.

The Orford Bay Timber & Logging Company, Limited, has been incorporated in British Columbia with authorized capital of $175,000, and head office at Vancouver.

The Victoria Furniture Company, Limited, Victoria, B.C., has been incorporated with authorized capital of $10,000 with power to manufacture and deal in furniture of all kinds.

The J. D. McArthur Lumber Company's sawmill at Lac du Bonnet, Man., was recently destroyed by fire, the loss amounting to $125,000. The company carried insurance to the amount of $50,000.

The North Alberta Lumber Company, Edmonton, Alta., is considering the erection of a sawmill at Edmonton. It is reported that the plant will be operated by a 1,000 h.p. generator which will also furnish the electric light.

Limits owned by the Kootenay Cedar Company on the Lardo and Duncan Rivers, at the head of Kootenay Lake, are to be taken over by the Riverside Lumber Company of Calgary, which has been operating in the Crow's Nest Pass district, and which has retail yards at prairie points.

Sealed tenders are being received by the Minister of Lands of British Columbia, up to noon on October 26th for the purchase of license X243, to cut 2,500,000 feet of Douglas fir and cedar, on lot 2980 Upper Stave River, New Westminster, B.C. Two years will be allowed for the removal of the timber.

The Mankin Lumber and Coal Company, whose headquarters are at Fayetteville, West Virginia, have secured extra-provincial registration in the province of British Columbia with provincial headquarters at Nelson, B.C., where James O'Shea is the company's solicitor. The powers of the company include manufacturing, buying and selling lumber and all kinds of forest products.

The Washington-British Columbia Timber Company, which has head offices in Walla Walla, Wash., own large limits on Vancouver Island, and if conditions are not too untoward will erect a mill next year. The company, which has registered in British Columbia, has the following officers: President, E. Blackburn; vice-president, H. A. Gardner, both of Walla Walla; secretary, George H. Foster, Baker, Oregon.

Sealed tenders are being received by the Minister of Lands of British Columbia, up to noon of November 23rd, for the purchase of license X52 to cut 6,000,000 feet of merchantable timber on an area situated north of lot 904, Loughborough Inlet, range one, Coast district. Two years will be allowed for the removal of the timber. Further particulars may be secured from the Chief Forester, Victoria, B.C.

The Wasser-Mowat Shingle Company, Edmonds, Wash., who recently acquired cedar limits in British Columbia from the C. W. Scarff Lumber Company of Seattle, Wash., report that until business picks up they do not intend to complete the shingle mill at Powell Lake, B.C. They have 14,000 acres of timber at Powell Lake and will put in six machines to start with. Within a year they intend to move two of their small mills from Washington over to Powell Lake and make the plant a twelve-machine mill, which will give them a capacity of 300,000 per day of ten hours. They are installing electric motors for power. They do not expect to put in a dry kiln as all of their product will go through the Panama Canal to the eastern States and provinces. Their buildings have been erected and they have bought their machinery and stored it at Vancouver and intend to complete the mill within sixty days from the time they find that market conditions warrant it. They state that they do not expect much improvement in the shingle business until after the war is settled.

Trade Enquiries

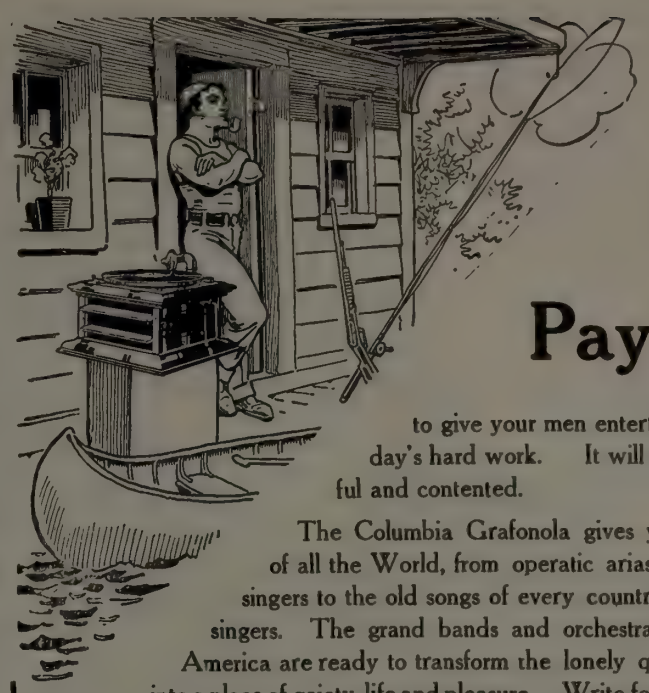
The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

981. **Canadian lumber manufacturers.**—A London firm desires to be placed in touch with Canadian lumber manufacturers from whom they could purchase supplies of oak and other wood for brush manufacturing purposes.

983. **Wood pulp.**—A correspondent at Genoa, stated to be in immediate touch with paper manufacturers in Italy, reports a market there for Canadian wood pulp in view of the suspension of German supplies and would like to hear from exporters in the Dominion.

985. **Pit props.**—A coal mining company desires to arrange for shipments to Hull of pit props of fir, or other suitable wood. Quotations desired f.o.b. Montreal or Halifax for large quantities of props ranging in size from 3 to 7 feet long and from 4 to 6 inches diameter (at the top); also for 100,000 bank bars or splits 5 feet by 6 inches by 3 inches; also for 50,000 sleepers 3 feet by 6 inches by 3 inches and 2,000 sleepers 6 feet by 6 inches by 3 inches.

1004. **Wood turnery, pulp-board, etc.**—A London correspondent is open to communicate with Canadian manufacturers of domestic wood turnery, pulp-board or "leather-board," and other lines made in the Dominion, willing to consider proposals for extending their export trade through London merchant houses.



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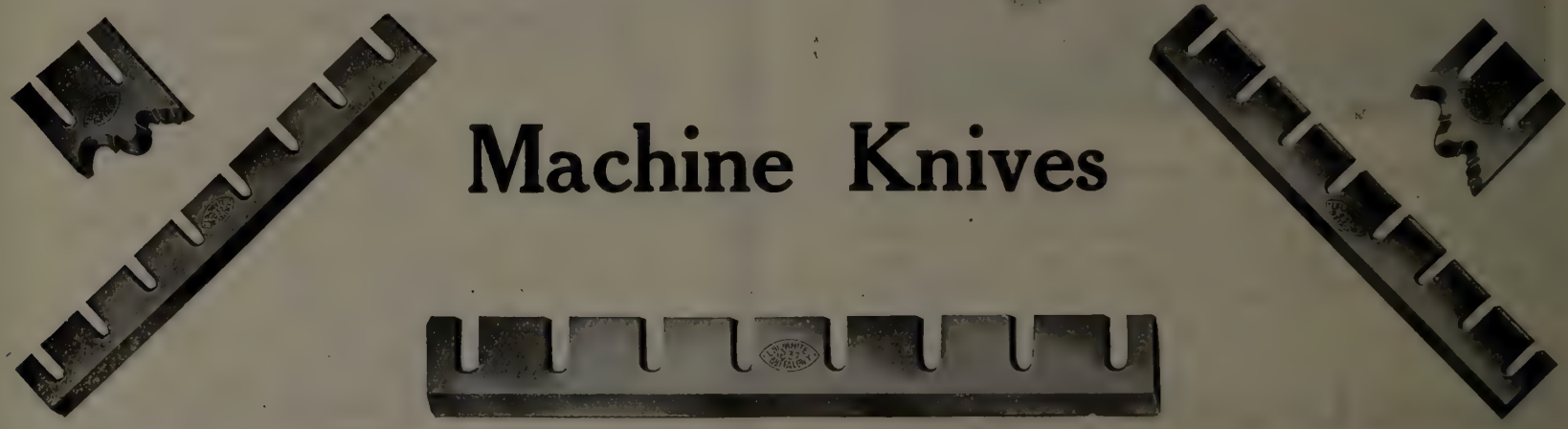

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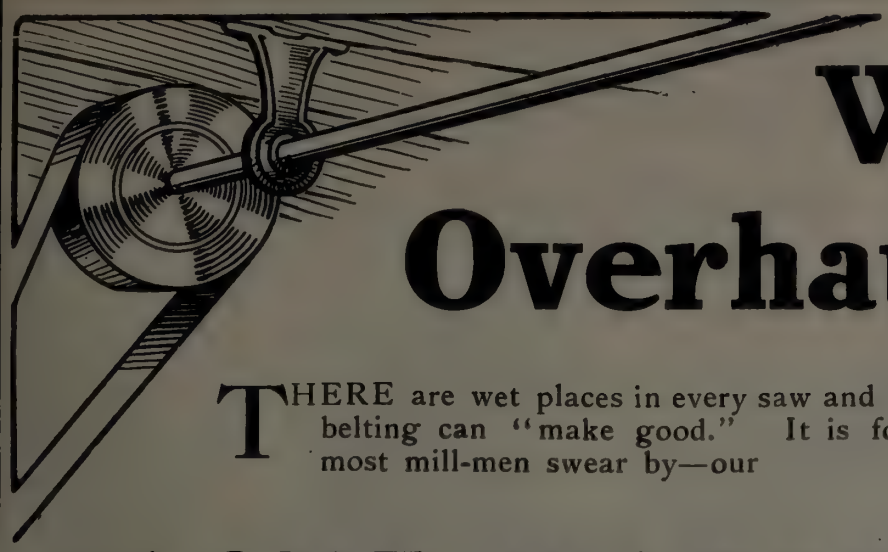

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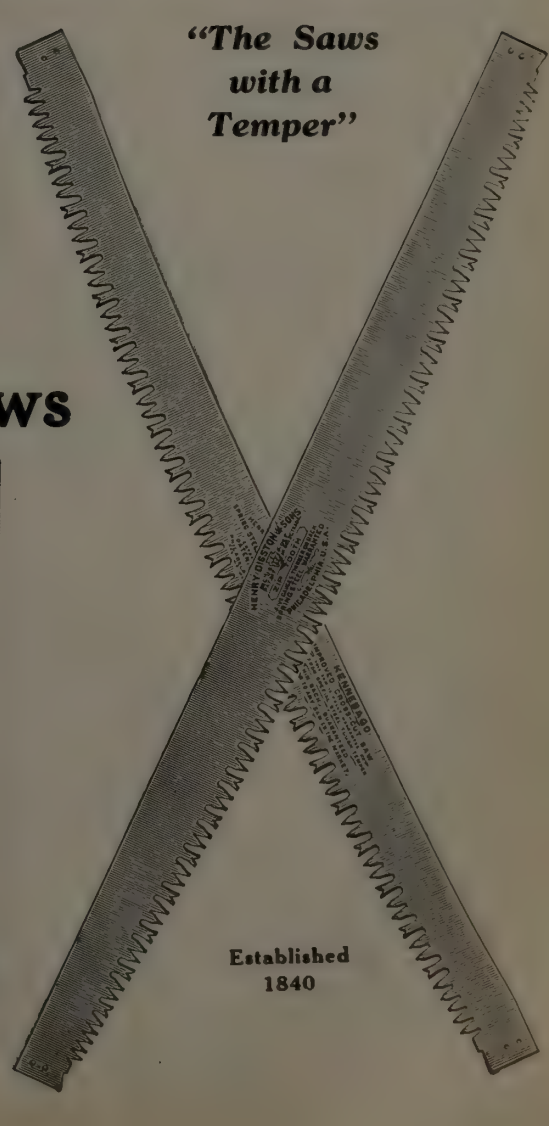

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5/4 and 6/4 x 5 m.r., m.c. out		27 00
5/4 and 6/4 x 6 m.r., m.c. out		27 00
5/4 and 6/4 x 8 m.r., m.c. out		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out		34 00
2 x 10 common		26 00
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common.	25 00	26 00
1 x 12 inch box and common.		27 00
1-in. mill run sidings	25 00	27 00
1-in. mill run snorts		22 00
1-in. mill run Norway		23 00
2-in. mill run Norway		25 00
Norway, c. and cf. 1-in.	30 00	32 00
Norway, c. and cf. 1½-in.	33 00	35 00
Norway, c. and cf. 2-in.	33 00	35 00
Spruce mill culls		19 00
Hemlock No. 1:		
1 x 4 and 5-in. x 9 to 16 ft.		19 00
1 x 6-in. x 9 to 16 ft.		21 00
1 x 8-in. x 9 to 16 ft.		21 00
1 x 10 and 12 in. x 9 to 16 ft.		22 00
1 x 7, 9 and 11 in. x 9 to 16 ft.		21 00
1-in. No. 2, 6-ft. to 16-ft.		17 00
2 x 4 to 12, 10 and 16 ft.		21 50
2 x 4 to 12-in., 12 and 14 ft.		21 50
2 x 4 to 12-in., 18 ft.		24 00
2 x 4 to 12-in., 20 ft.		26 00
2 x 4 to 12-in., 22 ft.		27 00
2 x 4 to 12-in., 24 ft.		28 00
2 x 4 to 12-in., 22 ft.		26 00
2 x 4 to 12 in., 18 ft.		24 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.		17 00
Clear in B. C. cedar, kiln dried		50 00
Douglas Fir:		
Dimension Timber up to 32 feet: 8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.		32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.		33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.		33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.		34 00
10x20, up to 32 ft.		34 50
6x18, 8x18, up to 32 ft.		35 00
6x20, 8x20, up to 32 ft.		36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 to 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain		44 50
No. 1 and 2 clear 1-in. Fir rough		45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough		47 00
1½-in. No. 1 4-ft. pine lath		5 00
1½-in. No. 2 4-ft. lath		4 75
1½-in. 32-in. pine		2 65
1½-in. No. 1 4-ft. hemlock lath		4 00
1½-in. mill run hemlock lath		3 75
XX B. C. cedar shingles		2 35
XXX 6 butts to 2-in.		3 05
XXXX 6 to 23-16-in.		3 25
XXXXX		3 55

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00	
Ash, white, No. 1 common	45 00	
Ash, brown, 1sts and 2nds, 4/4	50 00	
Ash, brown, common and better	39 00	
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00	
Birch, 1sts and 2nds, 4/4	39 00	
Birch, No. 1 com. and bet., 4/4	33 00	
Birch, 1sts and 2nds, 6/4 and 8/4	42 00	
Birch, 1sts and 2nds, 10/4 and 12/4.	45 00	
Birch, 1sts and 2nds, 16/4	50 00	
Basswood, 1sts and 2nds, 4/4	40 00	
Basswood, No. 1 com. and bet., 4/4.	35 00	
Basswood, No. 2 and 3, common	18 50	
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00	
Basswood, 6/4 and 8/4, com. and bet.	38 00	
Basswood, 4/4, No. 2 com. and bet.	32 00	
Soft elm, 1sts and 2nds, 4/4	40 00	
Soft elm, No. 1 com. and bet., 4/4	34 00	
Soft elm, No. 2 and 3 common	17 50	
Soft elm, 6/4 and 8/4, 1 and 2	42 00	
Rock elm, 1sts and 2nds, 6/4 x 8/4.	55 00	
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00	
Soft maple, 1sts and 2nds, 4/4	33 00	
Soft maple, com. and bet., 4/4	28 00	
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00	
Hard maple, 1sts and 2nds, 4/4	37 00	
Hard maple, common and better, 4/4.	30 00	
Hard maple, 12/4 & 16/4, 1sts and 2nds.	46 00	
Red oak, plain 1sts and 2nds, 4/4.	59 00	
Red oak, plain 1sts and 2nds, 6/4 & 8/4	65 00	
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00	
White oak, plain, 1st and 2nds, 4/4.	60 00	
White oak, plain, 1sts and 2nds, 1½ and 2-in.	65 00	
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00	
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00	
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00	
White oak, ¼ cut No. 1 common	55 00	
Hickory, 1sts and 2nds, 4/4	70 00	
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00	

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:		
1" x 4" and up, 6'-11'	17 50	18 00
1"x3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	65	70
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	70
By the dram, according to average and quality, 30 to 35 feet.	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$21 00	22 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00	
1 in., 8 in. and up wide	62 00	
1¼ and 1½ in. and up wide	65 00	
2 in. and up wide	70 00	
Cuts and Better		
4/4 x 8 and up No. 1 and better	55 00	
6/4 x 8 and up No. 1 and better	65 00	
8/4 x 8 and up No. 1 and better	65 00	
6/4 x 6 and up No. 2 and better	52 00	
8/4 x 6 and up No. 2 and better	54 00	
6/4 x 6 and up No. 3 and better	46 00	
8/4 x 6 and up No. 3 and better	50 00	
No. 1 Cuts		
1 in., 8 in. and up wide	42 00	
1¼ in., 8-in. and up wide	55 00	
1½ in., 8-in. and up wide	57 00	
2 in., 8-in. and up wide	60 00	
2½ and 3 and 8-in. and up wide	75 00	
4 in., 8-in. and up wide	85 00	
No. 2 Cuts		
1 in., 6-in. and up wide	31 00	
1¼ in., 6-in. and up wide	42 00	
1½ in., 6-in. and up wide	44 00	
2-in., 6-in. and up wide	47 00	
2½, 3 and 4 in., 6-in. and up wide	62 00	65 00
No. 3 Cuts		
1 in., 6 in. and up wide	24 00	
1¼ and 1½ in., 6-in. and up wide	33 00	
2-in., 6-in. and up wide	33 00	
2½, 3 and 4-in., 6-in. and up wide	43 00	48 00
Common and Dressing Mill Run		
1-in. x 4-in.	25 00	
1-in. x 5-in.	25 00	
1-in. x 6-in.	26 00	
1-in. x 8-in.	27 00	
1-in. x 10-in.	29 00	
1-in. x 12-in.	34 00	
1 in. x 13 in. and up	34 00	
1¼, 1½ and 2-in.	30 00	
No. 1 Barn		
1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00
No. 2 Barn		
1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00
No. 3 Barn		
1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00
Box		
No. 1, 1, 1¼, 1½, 2-in.	22 00	25 00
No. 2, 1¼, 1½, 2-in.	19 00	23 00
Mill Culls		
Mill run culls, 1-in.		19 00
1, 1¼, 1½ and 2-in.		20 00
No. 2	17 00	18 00
Lath		
No. 1, 32-in. pine		1 75
No. 2, 48-in. pine		4 25
No. 1, 48-in. pine		4 75
No. 3, 48-in. pine		3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50
No. 1 Common Boards	
4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00
Flooring	
4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50
Shiplap—Finished	
4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50
Siding	
6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50
Lath	
No. 1 Cedar, Pine, Spruce	5 00
No. 2 Cedar, Pine, Spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14, up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Limensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00
FLOORING	
No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00
SHIPLAP	
Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8 in., 10 in. and 12 in. shiplap 10/16 ft.	23 50
B. C. Fir 6 in. shiplap 10/16 ft.	23 50
BOARDS—ROUGH OR S. 1 S.	
No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00
SHINGLES	
XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25
No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65
LATH	
No. 1 Mixed W. & R. Pine	**$4 25**
No. 1 B. C. Fir	**3 65**

BUFFALO AND TONAWANDA, N.Y.

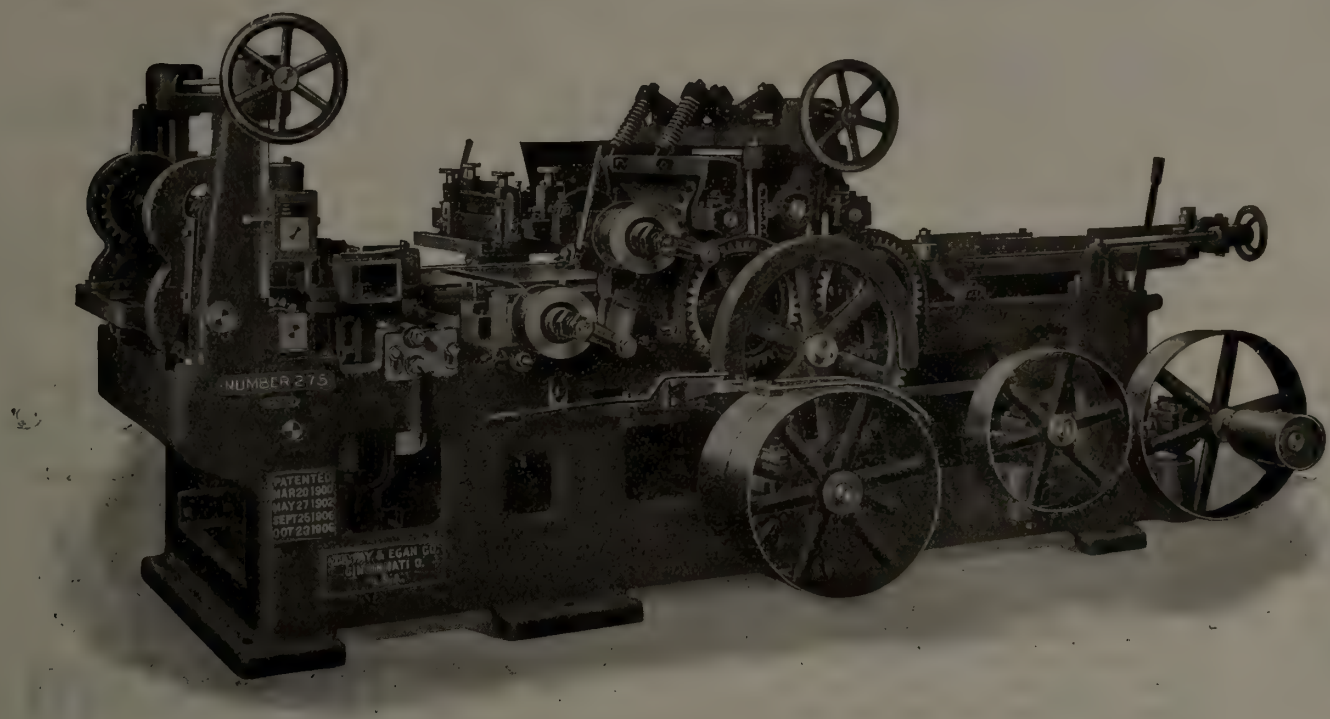
White Pine

Wholesale Selling Price

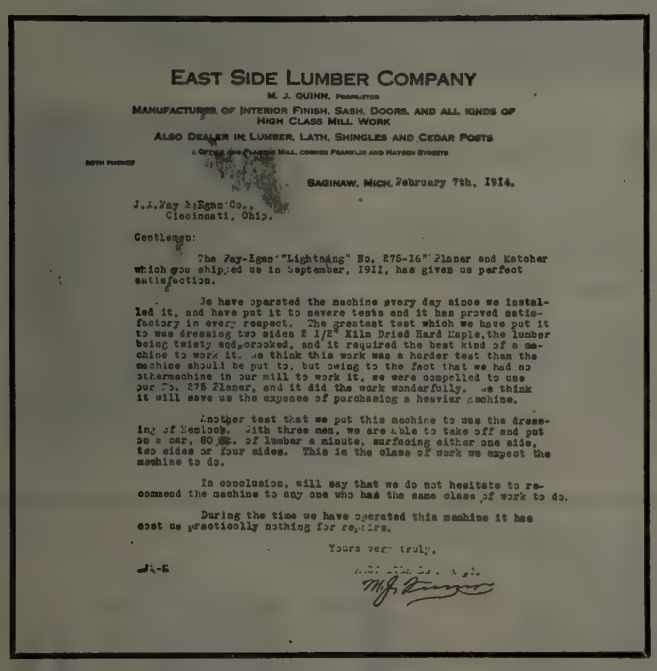
Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine Common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00

(Continued on page 66)

More Proof of the value of this Medium Weight and Medium Priced Matcher FAY-EGAN "LIGHTNING" No. 275



Satisfied Owners everywhere are telling us how the 275 is doing all that we claimed for it, even more—it will do the same for you.



EAST SIDE LUMBER COMPANY

M. J. QUINN, Proprietor

MANUFACTURER OF INTERIOR FINISH, SASH, DOORS, AND ALL KINDS OF HIGH CLASS MILL WORK

ALSO DEALER IN LUMBER, LATH, SHINGLES AND CEDAR POSTS

Office and Planing Mill, corner Franklin and Hayden Streets

SAGINAW, MICH. February 7th, 1914.

J.A.Fay & Egan Co.,
Cincinnati, Ohio.

Gentlemen:

The Fay-Egan "Lightning" No. 275-16" Planer and Matcher which you shipped us in September, 1911, has given us perfect satisfaction.

We have operated the machine every day since we installed it, and have put it to severe tests and it has proved satisfactory in every respect. The greatest test which we have put it to was dressing two sides 2 1/2" Kiln Dried Hard Maple, the lumber being twisty and crooked, and it required the best kind of a machine to work it. We think this work was a harder test than the machine should be put to, but owing to the fact that we had no other machine in our mill to work it, we were compelled to use our No. 275 Planer, and it did the work wonderfully. We think it will save us the expense of purchasing a heavier machine.

Another test that we put this machine to was the dressing of Hemlock. With three men, we are able to take off and put on a car, 80 M. ft. of lumber a minute, surfacing either one side, two sides or four sides. This is the class of work we expect the machine to do.

In conclusion, will say that we do not hesitate to recommend the machine to any one who has the same class of work to do.

During the time we have operated this machine it has cost us practically nothing for repairs.

Yours very truly,

JA-E

M. J. Quinn

In fact, every one of the 275 we have put out has more than satisfied the purchaser in both quantity and quality of production.

The letter, herewith, shows how the East Side Lumber Company use their 275 and what they think of it. We have others from all parts of the country proving it to be the Greatest General Purpose Planer and Matcher on the market.

The 275 is just the machine for your mill or factory It is medium in price and weight, low operating cost, a fine Matcher and Floorer, a great surfacer, as well as an Inside Moulder.

Accessibility to all parts is a feature of the 275, a necessity in the general purpose machine.

If you need a General Purpose Machine why not get the Greatest—a 275. Write today.

J. A. FAY & EGAN Co.

465-485 W. Front St. **Cincinnati, O., U. S. A.**

CURRENT LUMBER PRICES — Continued

No. 2 Moulding 5/4			47 00
No. 2 Moulding 6/4			47 00
No. 2 Moulding 8/4			47 00
No. 1 Barn 1 x 12			48 00
No. 1 Barn 1 x 6 and 8			34 00
No. 1 Barn 1 x 10			36 00
No. 2 Barn 1 x 6 and 8			32 00
No. 2 Barn 1 x 10			34 00
No. 3 Barn 1 x 6 and 8			26 00
No. 3 Barn 1 x 10			27 00
Box 1 x 6 and up			23 00
Box 1 x 10			25 00
Box 1 x 12			26 00
Box 1 x 13 and up			30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	30 - 32	20 - 22	14 - 16
5/4 to 8/4	33 - 35	22 - 24	14 - 15
10/4 to 16/4	37 - 39	27 - 29	19 - 21

RED BIRCH

4/4	41 - 43	27 - 29	15 - 17
5/4 to 8/4	43 - 45	29 - 31	17 - 19

SAP BIRCH

4/4	35 - 37	23 - 25	17 - 19
5/4 and up	37 - 39	25 - 27	17 - 19

SOFT ELM

4/4	35 - 37	24 - 26	15 - 17
5, 6 & 8/4	37 - 39	26 - 28	17 - 19

BASSWOOD

4/4	33 - 35	24 - 26	16 - 18
Thicker	35 - 37	26 - 29	19 - 20

PLAIN OAK

4/4	51 - 53	32 - 34	20 - 22
5/4 to 8/4	53 - 55	34 - 36	22 - 24

ASH, WHITE AND BROWN

4/4	45 - 47	27 - 29	18 - 20
5/4 to 8/4	52 - 54	29 - 31	19 - 21
10/4 and up	61 - 63	41 - 43	21 - 23

BOSTON, MASS.

White pine uppers, 1 to 2 in.	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00

Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 00	27 00
Spruce 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce, 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1⅝-in. spruce laths	4 15	4 25
1½-in. spruce laths	3 75	3 80

New Brunswick Cedar Shingles

Extras		3 50
Clears		2 90
Second clears		2 75
Clear whites		2 45
Extra 1s (Clear whites out)		1 50
Extra 1s (Clear whites in)		1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40	3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Clear Perfection, 5 butts to 2¾		4 80
Washington 16-in. 5 butts to 2-in. extra red clear		3 35

Patented Nov. 29-1892
July 19-1910

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

"20 Years

without one minute of attention only to oil."

That's what one of our customers says of one of our planing mill exhausters.

Sturtevant
(REG. CAN. PAT. OFF.)

Planing Mill Exhausters

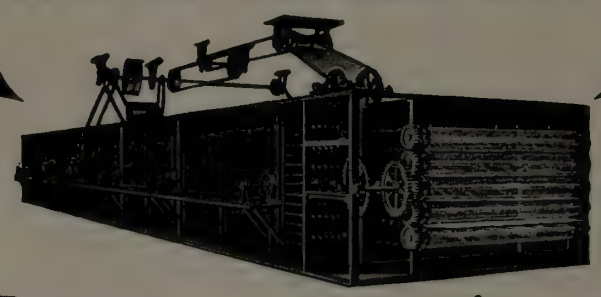
are noted for their sterling quality and their ability to wear practically forever.
Special wheels are made for long shavings.
These fans are in use in lumber mills and in woodworking establishments all over the country, and our engineers have had wide experience in this work. They are at your disposal at any time.

Send for Catalog 1851

B. F. Sturtevant Co.
of Canada, Limited
Galt, Ont.

Montreal **Toronto**
Winnipeg **Vancouver**

PROCTOR VENEER DRYER



Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

Send for catalog and list of users

The Philadelphia Textile Machinery Co., Philadelphia

"AJAX" Loading Chain

WELD:

Sectional view showing comparative size of weld and chain.

Experience has taught us that a good chain cannot be made from cheap material. In Ajax chains you get the best steel obtainable and every weld guaranteed. Ajax chain is guaranteed to pull stiff before breaking.

MANUFACTURED ONLY BY

Standard Chain Company, Pittsburgh, Pa.

MONTREAL—Alexander Gibb, St. Nicholas Bldg. **WINNIPEG—Bissett & Loucks**
VANCOUVER—John Burns, 329 Railway St.

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS,

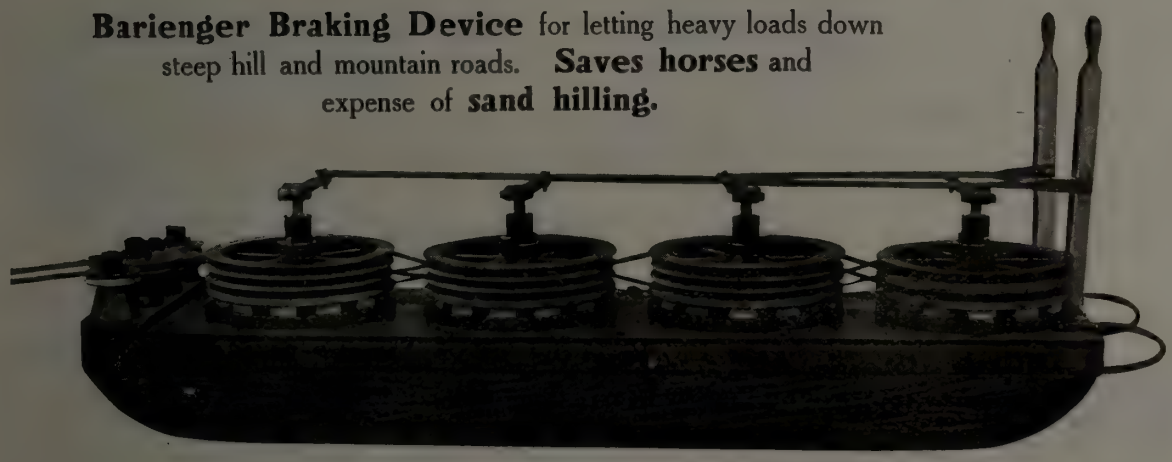
LONDON, CANADA **LIMITED**

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.

Locomotive Boiler on Skids

You Need a Brake This Season

Barienger Braking Device for letting heavy loads down steep hill and mountain roads. **Saves horses** and expense of **sand hilling.**



Now is the time to consider the use of this brake for another season before hauling roads are planned and built. By using this brake lumbermen are able to work much steeper roads, and in consequence, shorter roads, and there is a considerable saving in the cost of building roads.

OUR CATALOGUE FULLY EXPLAINS

Ryther & Pringle Company, Carthage, N.Y.

6 H.P. Heavy Duty Engine and Reverse gear with Winch

River Driving Costs

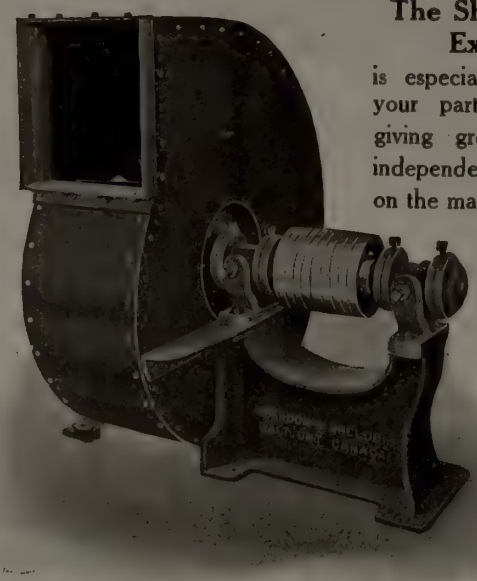
will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25 ft. punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 h.p.

Adams Launch & Engine Co.

Penetang, Ont.

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

is especially designed to suit your particular requirements, giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

Messrs. Ross & Greig, 412 St. James St. Montreal, Que. Messrs. Walker's Limited, 259-261 Stanley St. Winnipeg, Man.

Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.

Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.

THIS GUARANTEE PROTECTS YOU

We have such complete confidence in our sawmill machinery that it is all sold with the following guarantee.

These machines are guaranteed against defective materials and workmanship for the period of one year, and their proper and successful operation is also absolutely guaranteed. Should any part fail through defects, we will replace them free of charge, or should any machine not work properly, we will remove it at our expense, and refund any part of the purchase money which may have been paid to us.

You take no chances when buying our machines, and it is the only kind of machinery you want in your mill.

We build everything needed for a sawmill.

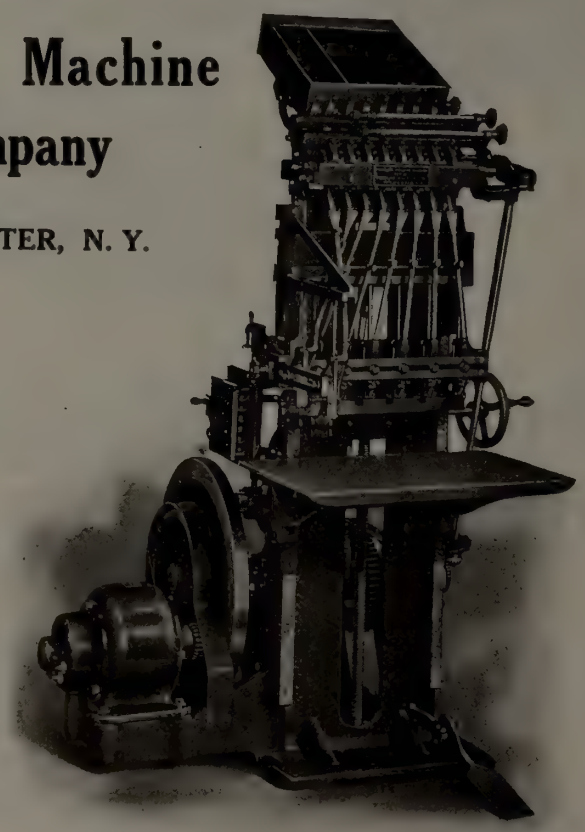
Let us get together

William Hamilton Company

Peterborough - Ontario

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

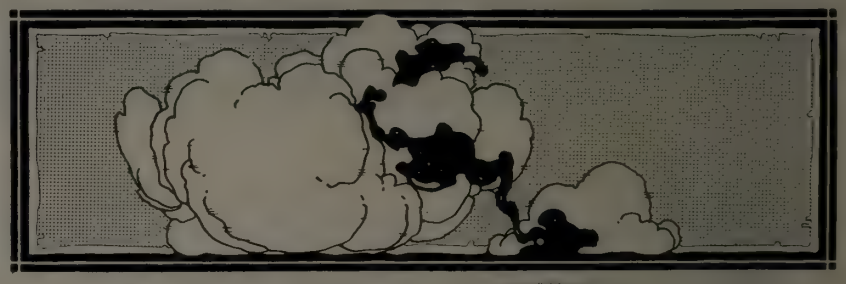
Box Board Matchers,

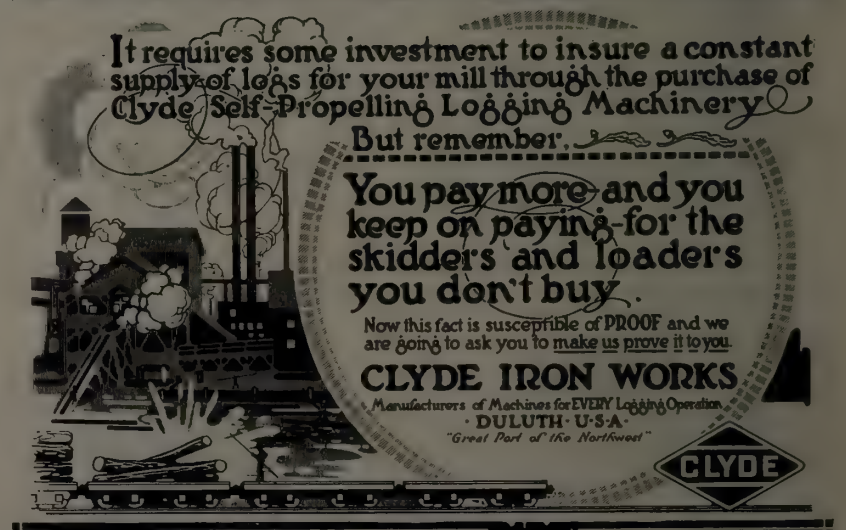
Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N.Y.




It requires some investment to insure a constant supply of logs for your mill through the purchase of Clyde Self-Propelling Logging Machinery
But remember.
You pay more and you keep on paying for the skidders and loaders you don't buy.
Now this fact is susceptible of PROOF and we are going to ask you to make us prove it to you.
CLYDE IRON WORKS
Manufacturers of Machines for EVERY Logging Operation
DULUTH U.S.A.
"Great Part of the Northwest"
CLYDE

BERLIN RESAWS Assure More Profits—Every Hour of the Day, Every Day of the Week, Every Week of the Year.

Berlin Resaws Produce Economically

These resaws are especially adapted to Canadian Planing Mill and factory conditions. No. 341 has 54-inch wheels and tilting feed works. No. 342 is a 64-inch, short saw machine with large capacity and powerful feed works.

There's a Berlin resaw especially designed for your work. There are single verticals for light, medium or heavy duty and a twin vertical for long shook stock; the single horizontal and the twin horizontal for resawing short shook stock, besides the slab resaws. All Berlin band rip and resaws and band mills are simple in design and operation and easily kept in order. Whatever ripping or resawing you want to do can be done at lowest possible cost on a Berlin.

Easy to Operate

On Berlin resaws the conveniently placed operating devices make maximum results easy to obtain. That's why any average workman can successfully operate them and also why reduced cost is assured.

The wheel tilt and quick cross-line adjustments are especially conveniently placed. The top saw guide adjusts from the front of the machine; a throw of a lever changes the speed of feed. The rolls are positioned by a quick, accurate set works.

Easy to File For

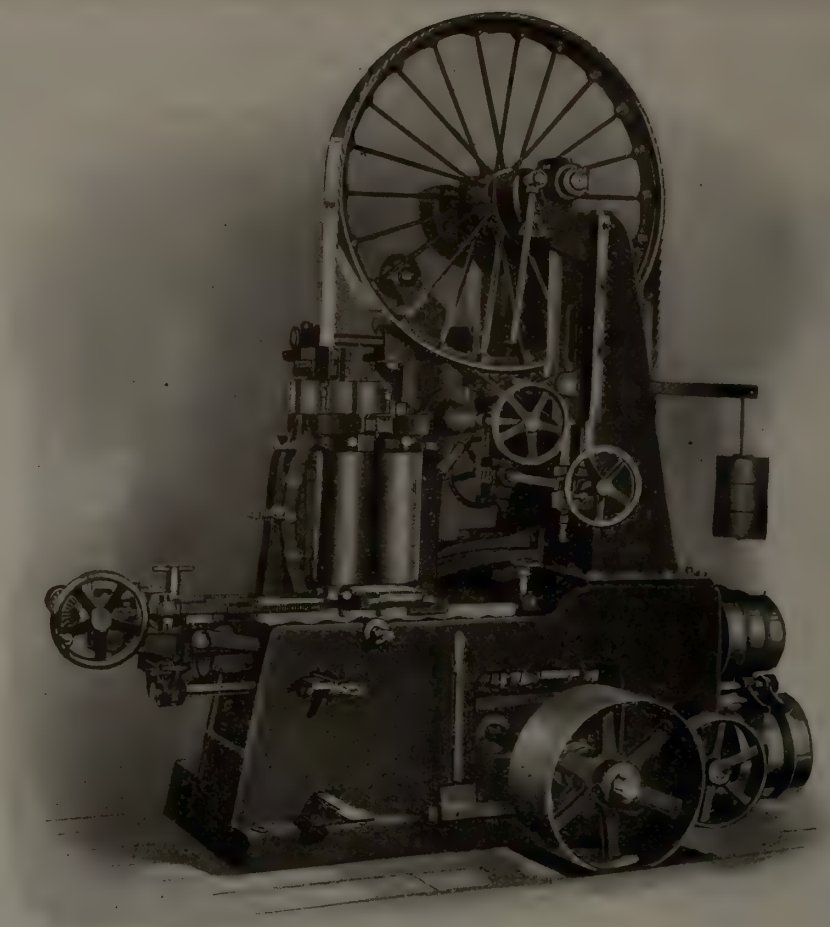
Filers say that blades on Berlin resaws endure longer runs at fast feeds—that our very sensitive Knife-edge straining device is assurance against cracked blades. The saving made because of low upkeep cost of blades and machine is one reason for installing Berlin resaws. Before you decide on any particular resaw, investigate thoroughly the merit of Berlin "Quality" built band sawing machinery. Berlin resaws are working in many Canadian mills. See one in operation.

We'll send you complete data and the address of your neighbor user if you'll drop us a card request.

BERLIN MACHINE WORKS, LIMITED, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World

UNITED STATES PLANTS, - - - - BELOIT, WISCONSIN



54" Vertical Re-Saw

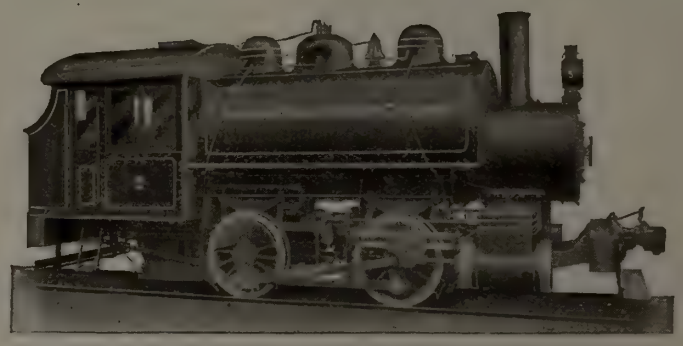
This is an exceptionally rigid machine and will give high grade results at a fast feed under the hardest conditions of continuous service.

The upper band wheel rests directly on the straining device making a very sensitive tension; therefore a very thin saw can be used.

We also manufacture Horizontal Re-saws and will gladly mail catalogue upon request.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.

WHAT YOU WANT IN A LOCOMOTIVE



Reliability is what you want in a locomotive.

Efficiency and durability in our locomotives make them reliable.

For the service small locomotives are called upon to perform, reliability means readiness to perform a day's work every day. You know how the work stops when the locomotive is out of service. We guard against breakdowns by the material and the design.

Every part is made with reference to long life. Every part is made interchangeable for each size of locomotive, so worn parts may be quickly replaced without a machine shop. This is most important in keeping the engine on the job.

Get in touch with us

MONTREAL LOCOMOTIVE WORKS, LIMITED

DOMINION EXPRESS BUILDING, MONTREAL. CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works
ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

WAR

makes no difference to our

DELIVERIES
ON
BELTING

LANCO BALATA BELTING

The Belt you can use out of doors in wet and frost, in fact under any conditions except those of heat.

Other Belting Lines—

Scandanavia
Teon
Leather

Federal Engineering Co., Limited
Toronto - Montreal

This engine is 13½ ins. x 18 ins. and weighs 35 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run. Oil or coal burning.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

Grey Iron Castings—any size or shape—ordinary or intricate - made promptly. New foundry, splendidly equipped. We would be pleased to quote on castings—singly or by contract. We also make drop forgings of all descriptions.

MAY WE SEND YOU SPECIFICATIONS?

Canadian Locomotive Company, Limited, Kingston, Ont.
Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

MORGAN DOORS

"The Door Beautiful"

We were the original designers of the above illustration, which will give the readers of the Canada Lumberman a conception of the attractive variety of designs in Morgan doors.

Each model illustrated is truly "A Door Beautiful".

Morgan Company
Oshkosh, Wis., U. S. A.

The Mark THE E. LONG MANUFACTURING Co. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

A Boss Dog Carriage

For Quick Work in Small Logs

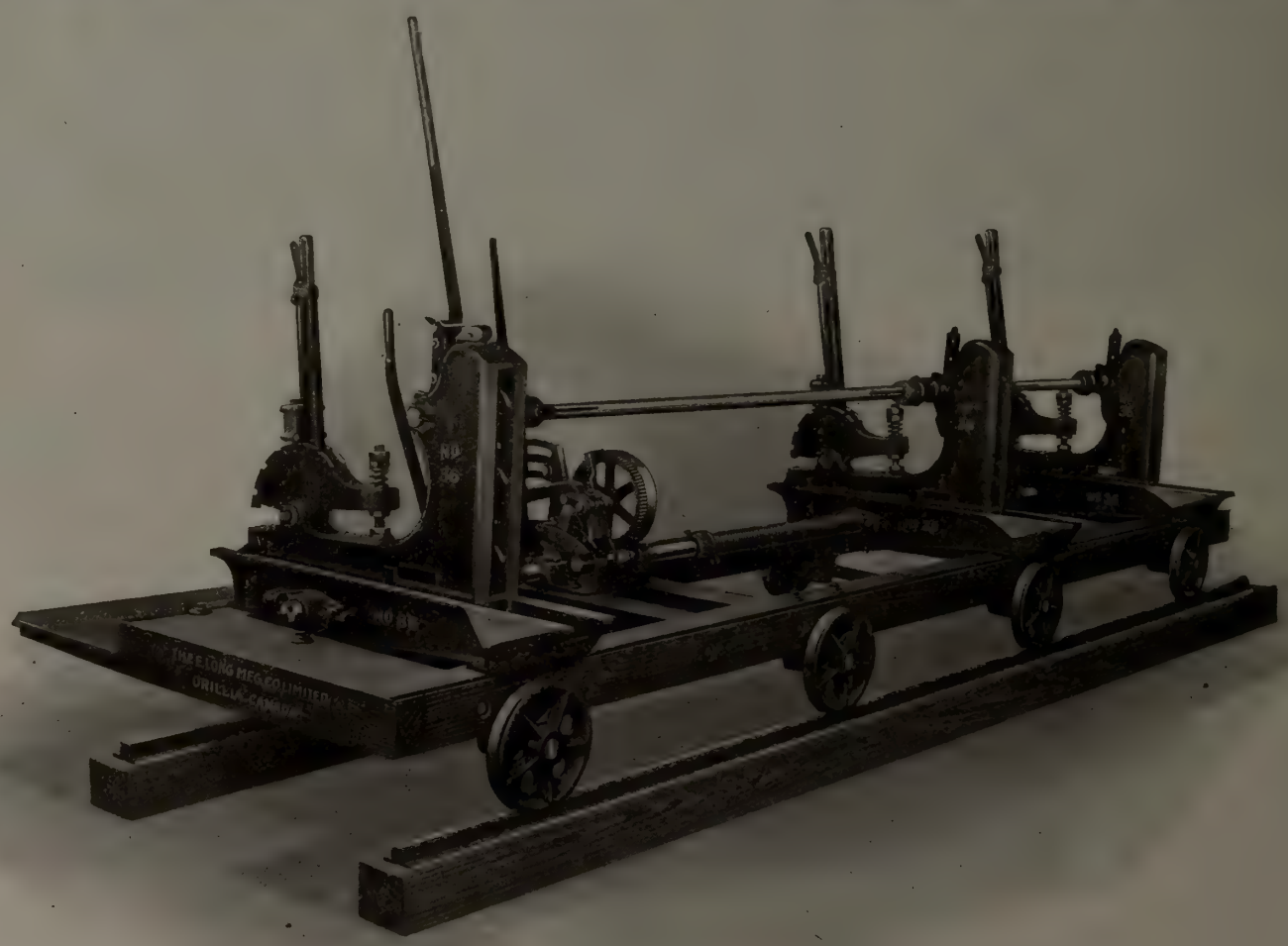
A carriage designed to stand abuse, yet light enough to be speedy.

Catalogue No. 100, shows a carriage for every purpose. Have you got it?

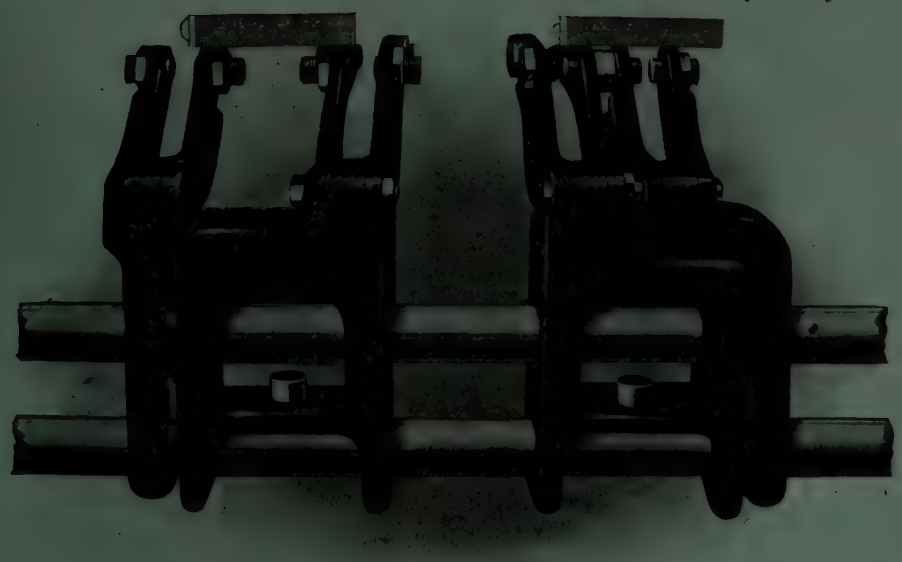
The E. Long Mfg. Co., Limited, Orillia, Canada

AGENCIES:

Vancouver—Robt. Hamilton & Co.
Calgary and Edmonton—Gorman, Clancey & Grindley, Ltd.
Winnipeg—The Stuart Machinery Co., Ltd.
Montreal—Williams & Wilson, Ltd.



No. 36 Standard Carriage



Right Here in the Guides

the superiority which distinguishes every part of the Waterous Edger is evident.

By carrying the guides on two steel shafts let into the edger frame the greatest ease of movement and the utmost rigidity has been obtained. Notice that the stationary and shifting guides can be approached within 3 in. of each other. Three distinct types of guides are supplied, so designed that by proper selection they can be combined to meet practically every edger requirement of the modern sawmill.

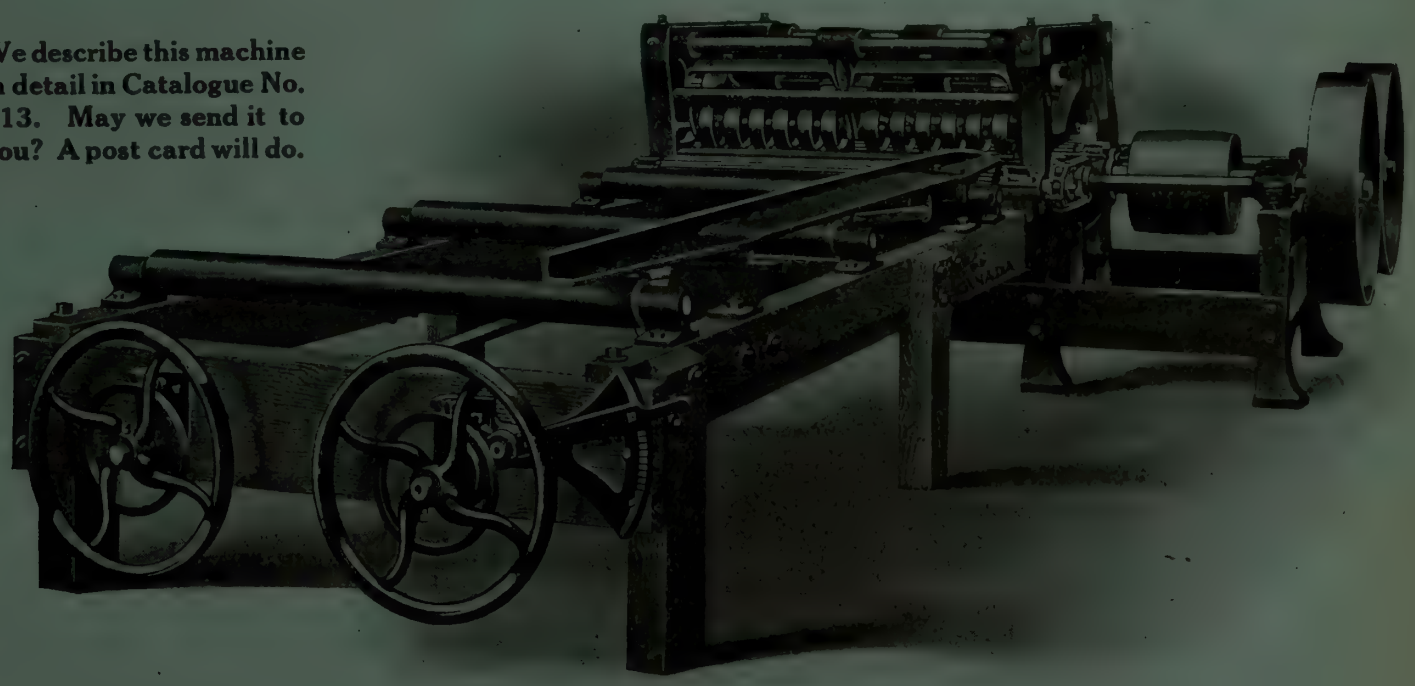
Their all-steel construction, the safety swing back arms and non-heating, slow wearing saw plugs with which they are fitted spell exceptional wear and service. We have spent plenty of money perfecting these guides but the results obtained have more than justified the expense.

The Waterous New Champion Edger

is built to suit both the man who buys and the man who operates it. While you can be satisfied that the Edger is mechanically correct, that it will give results with the proper handling, you can be dead certain that your edgerman will handle it to get those results. Every constructional feature that will simplify operation, that will make adjustment and cleaning more convenient, and that will increase the safety of the operator, have been introduced in the New Champion Edger.

Your edgerman will appreciate these things and the work he turns out will show it.

We describe this machine in detail in Catalogue No. 113. May we send it to you? A post card will do.



The Waterous Engine Works Co.

BRANTFORD, CANADA Limited

Vancouver, B. C. Winnipeg, Man,

"FROST KING" METAL

$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

President and General Manager D. C. CAMERON, Winnipeg
Assistant General Manager WM. ROBERTSON, Vancouver
Secretary-Treasurer, WILSON BELL, Winnipeg

The Rat Portage Lumber Co. Ltd.

Manufacturers of

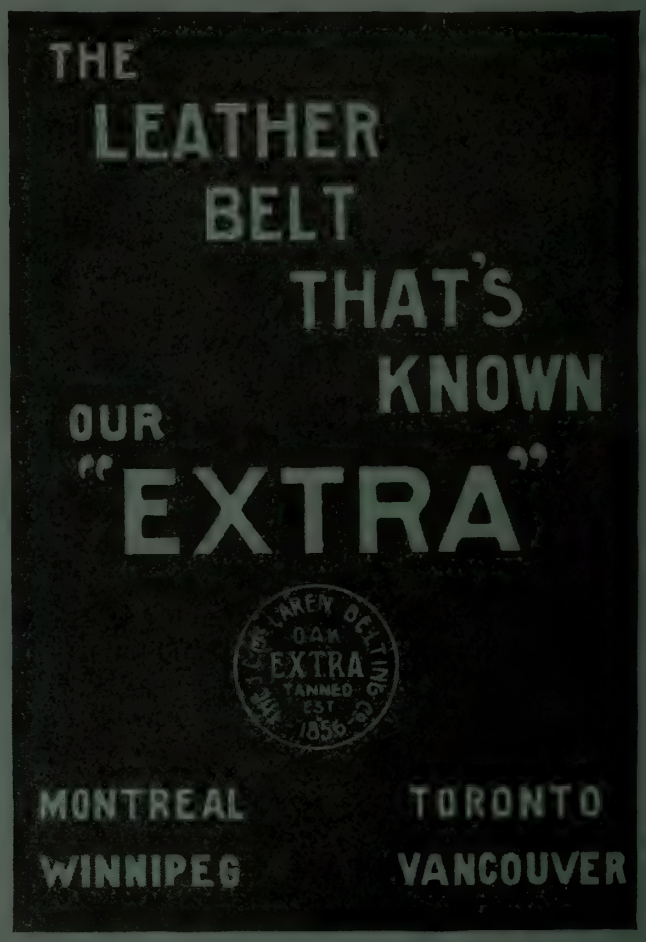
Fir, Cedar and Spruce LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.



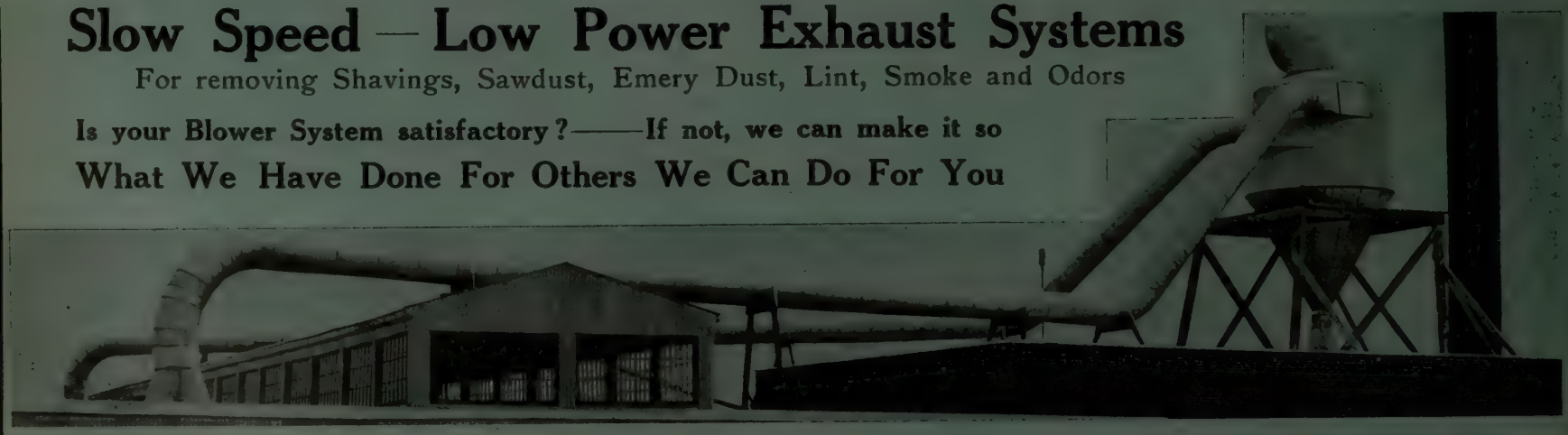
The J. C. McLaren Belting Co.
Limited
General Mill Supplies - MONTREAL

Slow Speed — Low Power Exhaust Systems

For removing Shavings, Sawdust, Emery Dust, Lint, Smoke and Odors

Is your Blower System satisfactory?——If not, we can make it so

What We Have Done For Others We Can Do For You



Our System recently Installed in Largest Box Shook Factory in Ontario.

TORONTO BLOWER CO., Toronto, Ont.

Vol. 34 Toronto, November 1, 1914 No. 21

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

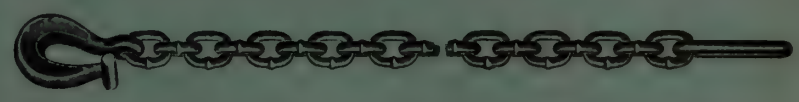
Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.



Electric-Welded Boom Chain

25% More Weld = 25% More Strength = 25% More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Ready for Instant Use

A Fairbanks-Morse Gasoline Fire Engine will save its cost many times in an emergency.

FAIRBANKS-MORSE PUMPS AND MOTORS

Dicks Balata Belting—Valves—Steam Goods—Saw Mill Supplies. They are all of the best and are in daily use by the largest Saw Mills in Canada.

The Canadian Fairbanks-Morse Co., Limited

St. John, Montreal, Quebec, Ottawa, Toronto, Hamilton, Fort William, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Victoria

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

STOCKS 2" TO 24" WIDE

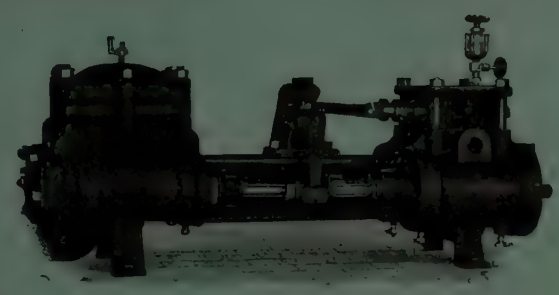
THE BELT YOU WILL EVENTUALLY USE

BECAUSE—It has no plys to open up and fall apart.
BECAUSE—It withstands heat, cold, damp, wet and chemical fumes.
BECAUSE—It is uniform in thickness and runs true.
BECAUSE—Of its great strength, almost twice that of oak-tanned double leather.

Sole Makers

F. REDDAWAY AND COMPANY, MONTREAL

Stocks carried by The A. R. Williams Machinery Co., Limited,
TORONTO WINNIPEG



Each of our CENTRIFUGAL Pumps is designed for the particular service required.

Send us your inquiries.

The Smart-Turner Machine Company, Limited

Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

For Quick Shipment Send Your Orders to Us

THE FOLLOWING DRY

Pine and Spruce Lumber

IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 "	1 x 10″	"
50 "	1 x 7″ and up	"
10 "	1¼ x 7″ and up	"
10 "	1½ x 7″ and up	"
2 "	1½ x 12″	"
5 "	3 x 6″ and up	"

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

Clear and No. 1 Spruce

10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 "	1 x 7″	"
4 "	1 x 8″	"
5 "	1¼ x 8″	"
3 "	3 x 10″ and up (mostly 11″)	"

Also "BEAVER BRAND" White Cedar Shingles—full count. Shipment by rail or water.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada

View of logs in Sturgeon River

White and Norway Pine Dimension Timber

6 x 6—12/16′,	25,000′	10 x 10—12/16′,	65,000′
6 x 8—12/16′,	50,000′	10 x 10—20/24′,	52,000′
8 x 8—12/16′,	25,000′	10 x 12—16′,	45,000′
8 x 8—20/24′,	38,000′	12 x 12—11/14′,	34,000′
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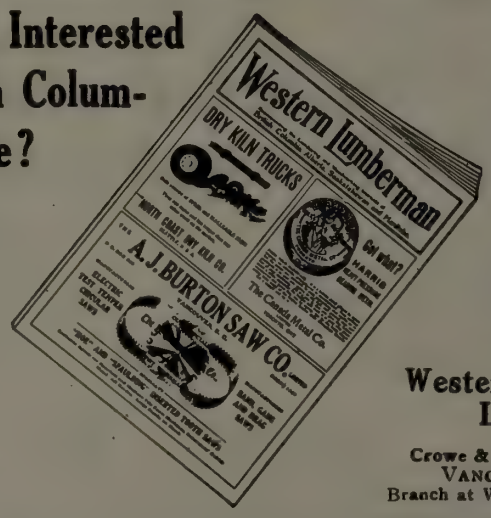

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Can furnish all grades and thicknesses from 4/4 to 8/4 in Chestnut.

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Can also furnish any grades in 4/4 that you require.

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Yards at Nashville, Tenn.

We can ship you promptly any of the above Stock, Carefully Inspected.

WE WOULD LIKE TO HEAR FROM YOU

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Real Estate Trust Bldg., Philadelphia, Pa.

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Fort Wayne, Indiana

Manufacturers of Hardwoods—Any Thickness From

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to
2″ BAND SAWED LUMBER

Specialty:

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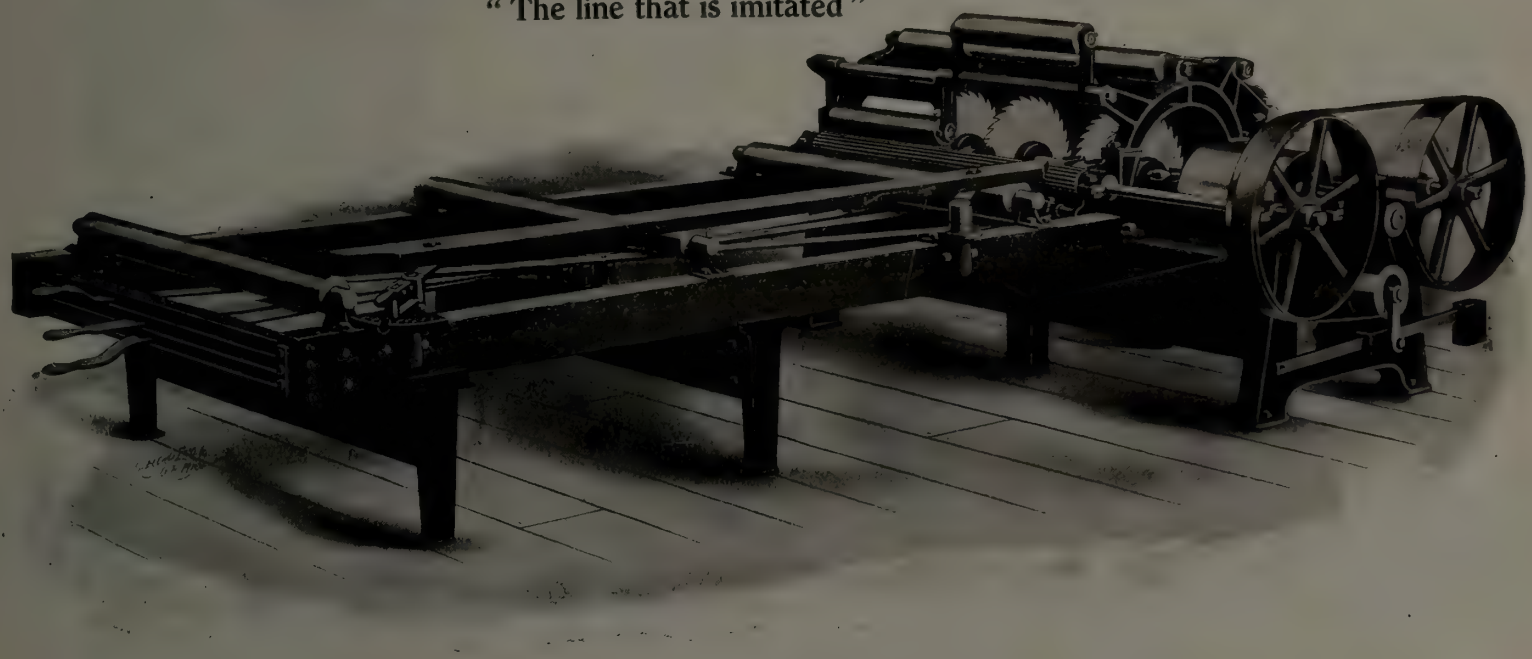
WM. E. HILL CO.

KALAMAZOO, MICH, U. S. A.

Manufacturers of Saw Mill Machinery

"The line that is imitated"



No. 3 GANG EDGER

A heavy, durable machine, built in two widths—45 and 48 inches—with either three or four saws. Sold at a moderate price. **Catalog Free**

Pink's Lumbering Tools

The Standard Tools in every province of the Dominion, New Zealand, Australia, etc.
We manufacture all kinds of lumber tools. Light and Durable.

Long Distance Phone, No. 87

Send for Catalogue and Price List.

Sold throughout the Dominion by all Wholesale and Retail Hardware Merchants.

The Thomas Pink Company, Limited

Manufacturers of Lumber Tools

PEMBROKE - - - - - ONTARIO

MADE IN CANADA

It's a Pink anyway you take it, and it's the best Peavey made.

Making Friends

That is what Arkansas Soft Pine is doing wherever it goes. Its uniform texture, its beautiful figure, the "consistently good" character of this stock makes friends for the producer, for the retail lumbermen who sell it, for the planing mills that use it and for the carpenter who makes buildings of it.

From a Newly Acquired Friend

"We have just unloaded the car of casing, base and finish which you shipped us and we are pleased to say it is the best car of this class of material we have ever received.

"We have in the past purchased lumber from the —— Lumber Company but have always had to run it through the sander before sending it to a job. This stock from you we are able to send direct to the job without sanding.

"You may rest assured of receiving future orders."

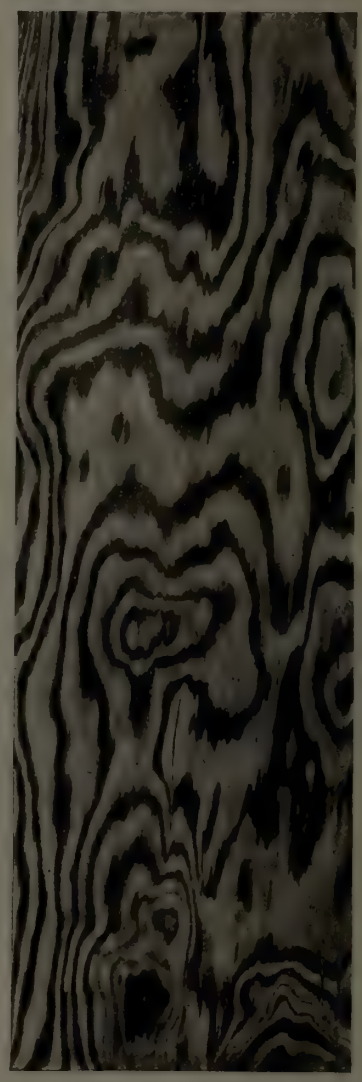
There is an ever increasing demand for good lumber. More and more "good lumber" is becoming the national synonym for **Arkansas Soft Pine.**

It is a factor in securing and retaining business that should work for and be a source of profit to every progressive dealer.

Arkansas Soft Pine costs more because it is worth more. One of the reasons is given in the letter quoted. Perfection in manufacture increases the sale value and the use value of a wood that intrinsically **is** worth more.

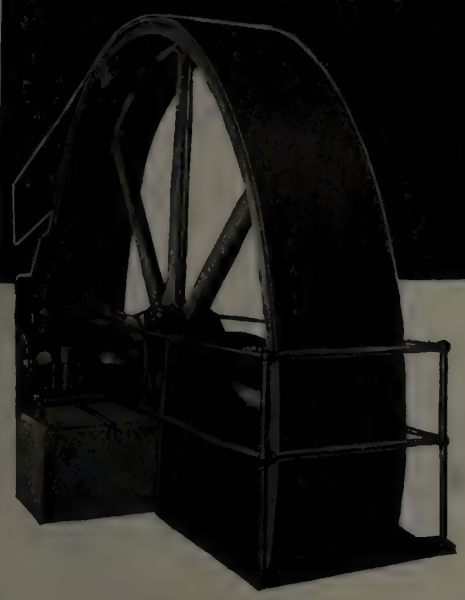
Is that the kind of lumber you are selling?

A Sample of the kind of Lumber that mal-es friends.



Southern Lumber Company - - - Warren, Ark.
Stout Lumber Company - - - Thornton, Ark.
Valley Lumber Company - - - - Reader, Ark.
Wisconsin & Arkansas Lumber Company - Malvern, Ark.
Arkansas Land & Lumber Company - - Malvern, Ark.
Arkansas Lumber Company - - - Warren, Ark.
Cotton Belt Lumber Company - - Bearden, Ark.
Crossett Lumber Company - - - Crossett, Ark.
Eagle Lumber Company - - - Eagle Mills, Ark.
Edgar Lumber Company - - - Wesson, Ark.
Fordyce Lumber Company - - - Fordyce, Ark.
Freeman-Smith Lumber Company - - Millville, Ark.
Gates Lumber Company - - - - Wilmar, Ark.

Service Belting Made in Canada



Buy belting made in Canada, and at the same time get Service belting—the most economical belting—Goodyear Belting.

Saw mill work demands belting made for hard day-in-and-day-out service and for varying stresses all day long.

Goodyear belts are designed to meet these unusual conditions. Every Goodyear product is the result of careful study of actual working conditions by Goodyear experts. That is why Goodyear products are referred to as Service products.

"Extra Power"

This is a high speed belt for heavy drives. It shows the highest friction pull of any belt we know of. "Extra Power" stands up under most gruelling service. The duck is the heaviest and strongest we use. All materials are laboratory tested for super-power. The stretch is taken out in the making. The possibility of ply separation is reduced to a minimum.

GOODYEAR MADE IN CANADA

"Imperial"

This is a belt for high speed small pulleys, wonderfully flexible. This insures a maximum arc of contact, utmost power delivery, no slippage—a fine belt for trimmer work.

Other Features

All Goodyear belts have the famous sealed seam which makes them virtually "one piece" and are cured under heavy, carefully regulated hydraulic pressure. "Extra Power" is made in various widths, endless when desired.

Buy This Way

Let Goodyear experts help you. It costs nothing to confer with them. Involves no obligation on your part. They will be glad to confer with you and advise you. Remember that these Goodyear products are made at the Goodyear factory at Bowmanville, Ont. Here are employed the same methods and quality standards that have won Goodyear leadership in tires. Write to Goodyear experts today. State for what particular purpose you require belting, hose or packing.

The Goodyear Tire & Rubber Company of Canada, Limited

Head Office—TORONTO, ONT. Factory—BOWMANVILLE, ONT.

Branches at—Vancouver Edmonton Calgary Regina Winnipeg Hamilton Toronto Ottawa Montreal St. John, N.B.

MAPLE LEAF SAWS

MAPLE LEAF SAWS, **"THE PROVEN BEST,"** absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

Shurly-Dietrich Co., Limited, Galt, Ontario

Branch: VANCOUVER, B.C.

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 8-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

FILING ROOM

1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

POWER PLANT

2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

2 125 h.p. Water Wheels.

1 Upright Engine for sawdust conveyor.

1 10 h.p. Engine.

1 Mitts & Merrell Hog.

1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

1 Edger for ripping dry lumber, installed.

1 Edger for ripping dry lumber, not installed.

1 30 h.p. Generator, 250 volt.

1 30 light arc generator.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The
Parry Sound Lumber Co.
Limited

26 Ernest Avenue, TORONTO, CANADA

SPUD

for Bark Peeling, fills a long felt want.

Made of Forged Steel with substantial Sockets uniform in size.

Prompt shipments in any quantity desired.

The
Thomas Laughlin Company
Portland, Maine, U.S.A.

We also manufacture a large line of CONTRACTORS' SUPPLIES and MOTOR BOAT FITTINGS.

If a dealer, ask for our 450 page catalogue.

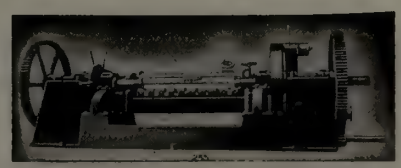
WATERPROOF 3 PLY VENEER

have been made for quite some time in Russia and the product has become a household article with furniture and wooden-ware manufacturers all over the world.

This everybody knows, who is connected with or interested in the veneer business.

Lumber manufacturers not directly in touch with the line, however, may not know it, but if they want to, they can secure all the information they need by writing to

Merritt Manufacturing Company, Lockport, N. Y.



Another rather important side of this subject is that Great Britain is clamoring for waterproof panels or plywood right now and is looking to The North American Continent to take care of the demand.

Will Canadian Manufacturers be able to supply this waiting market, which they later on very we l can hold, if they like to. ? We should say NO. They never offered the matter much thought leave alone the manufacturing of veneer for this purpose. But, lumber is plentiful in Canada and of the right kind and the plywood manufacturing is a paying proposition, we are told.

Are you going to help rebuild Europe, and are you going to make the waterproof ply-wood industry one of the chief features af your lumber business. ?

It is easy, if you know how, and the above mentioned firm will tell you. There are no complicated methods or machinery to worry over, everything is very simple, in fact simpler than any other method of lumber reducing, and much more economical by leaving less waste than ordinary saw and planing mill practice does.

.The usefulness of waterproof plywood is so varied and extensive besides constantly increasing that it would seem important for lumbermen to investigate this market, when there would be little doubt about the result, viz:

"Made in Canada"

The World-Famous

SIMONDS

Crescent-Ground

CROSS-CUT SAWS

MADE IN MONTREAL

Yes they are famous because they have been giving such universal satisfaction to Lumbermen and Loggers for so many years and in so many different parts of the world.

Crescent grinding and Simond's Steel is a combination that makes the best edge-holding, even tempered, well wearing cross-cut saw that the skill of man has yet been able to produce.

Price is not the factor; it is only results that count in making this the most economical saw on the market.

SIMONDS CANADA SAW COMPANY, LIMITED

St. Remi Street and Acorn Ave., Montreal, Que. Vancouver, B. C. or St. John, N. B.

Canada's Best

The Plant the Good Doors Come From

Here in this modern and completely equipped plant we are making doors, sash and trim of the very highest grade. We will be pleased to quote close prices on anything you may need in our line.

Write for our new catalogues and price lists.

Benson & Bray, Limited, Midland, Ont.

Box 416 Telephone 141

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.

Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N.Y., under the Act of Congress of March 3, 1879.

Vol. 34 Toronto, November 1, 1914 No. 21

The Doctrine of Business Enterprise

The greatest requirement of the business world in Canada to-day is enterprise. When the war is over, its effects upon us will be measured chiefly by the way in which it has altered our commercial and industrial life. Canadian business men have made a good reputation for themselves throughout the business world, and to-day they are being put to the test in a manner which will prove whether this reputation is well-founded or not. If we are to maintain the reputation we have secured, business enterprise is the great thing needed. Thrift is well enough in its way. Its importance is great, but it is of no use to be thrifty unless one has something to put his thrift to work upon. What we need to-day is to realize that it is far more important to make money than to save it. We have been talking with much self-satisfaction lately, of efficiency, of thrift, of safety first, and of many other similar things which have come to play a great part in the business world, and the danger is that we are likely to raise them upon too high a pedestal and to fail in business enterprise. We are in danger of thinking so much of safety first and of thrift that we will hold business ventures in check, keep men unemployed and make collections slow. Under the critical conditions existing to-day we need to lay the emphasis much more decidedly upon enterprise. The enterprise that is required is not the kind that takes enormous chances in the hope of making corresponding gains, but a variety that gives intelligent study to prevailing circumstances and works out a plan for turning to profitable account those conditions, new and strange as they may be, under which we find ourselves. Above everything else to-day, we need to discourage the habit of hoarding which has become so much more general than it was a few months ago. We need to develop a habit of encouraging the movement of goods and money, the habit of paying and being paid, so that financial and commercial conditions may improve. In all lines of business we need aggressive and intelligent activity.

We cannot afford to cry down thrift as a virtue, neither can we afford to raise it upon a pedestal to-day. Thrift is of many varieties and we all know of some varieties that are a public menace. We have seen this danger lately very clearly. We saw, in the early days of the war, the tendency to store away supplies to last over a possible period of scarcity and high prices, and we saw a disposition on the part of nearly everybody, for a few days at least, to practically crawl into a hole and pull the lid after them, with the intention of remaining under cover until the storm passed over. We have seen evidences of this in every direction. It was based upon an ill-considered fear of events which we had never before experienced and which we did not stop long enough to understand.

We have heard people talk about rocking the boat and we have told the rockers to sit down. That is well enough as a precaution, but it does not go quite far enough. The man who simply sits down in a boat never arrives anywhere. He must use the oars if he wishes to go forward, but many business men have simply been sitting tight in the middle of the boat holding stiffly to both sides. What we want and what fortunately we are now finding is men who will not only sit in the middle of the boat, but who have a clear vision of the shore towards which they are heading and are doing their best to send their boat forward in the right direction.

Thrift, the object of which is to acquire the means necessary for further enterprise, is right enough at all times. To-day however, we need, even more than this commendable variety of thrift, an appreciation of the danger of halting our activities and blocking the progress of industry. There must be a period of wonderful expansion ahead of us, somewhere in the not far distant future, and we should not wait for it to arrive. The best way to meet it is to adopt a very definite policy of persistent building up of business. Business will-never build itself up. Trade conditions now are changing. The scenes of business activity are shifting, and there is little or nothing to be gained to-day by waiting. If we wait we will find that someone else has done the building and that his structures surround and smother us. We must watch and study every indication of change and do all we can to increase the general sum of business activity. We must not only talk business but practice it. We have talked business for so long when business was good, that now it is up to us to put into practice many of the things we talked about so much. For the individual, the best business maxim is to study conditions and to get out into the open where he can see and be seen. Advertising is the keystone to business development at all times. It worked wonders in the good years of the past, and its power is even greater to-day than it was in the days before the war. We need to-day to spend, to study and to put into practice the things we have preached when times were good.

Relation of "System" to Advertising

Although practically every branch of business nowadays has been subjected more or less to the control of "system" it is curious that probably the most important department in connection with many classes of business has been largely neglected from this point of view. When one considers the extremes to which many business institutions have carried the worship of "system" it is strange to find that, in the department of advertising, the application of "system" has made comparatively little headway. At first, this statement is likely to be contradicted, but it only needs a comparatively small amount of consideration to discover that, although some firms and agencies have developed advertising methods upon very successful systematic lines, there are many others who have not done so, and a still greater number who, not appreciating the value of advertising, have failed entirely to take any advantage of it, either in a loose or a systematic manner.

Trade journals have recently published a far greater amount of discussion about business management than they used to publish a few years ago. There are some people who believe that the subject has been given too great an amount of space in the press and too much personal discussion, and that the result is that "system" has become something of a "fetish" which prevents them from giving the necessary amount of attention to other important business factors. There is no doubt about the fact that "system" has been overdone in more ways than one, but it is also beyond question that the movement to-

wards systematizing all branches of business management which has been the most outstanding feature of all business life for some years has had a great influence for good.

We are accustomed to considering the growth of advertising of late years as one of the most remarkable developments of the age, and to a great extent we have associated it with the application of "system" to business management, as we understand it to-day. The connection is there beyond any question, but it is not nearly as definite as it should be, and as it probably will be in the future. "System" has been applied to advertising by all great and successful advertising firms and institutions and has been one of the important causes of their success, but there is a great necessity for increasing its application to publicity work, and making it serve the requirements of many lines of business which have not yet appreciated its value. Advertising specialists are preaching the gospel of systematic publicity all over the world, but they have a great task before them. They must persuade those who are prejudiced against advertising, as well as those who have suffered from misdirected advertising efforts, and it is hard to say which of these is the tougher proposition, because each considers that advertising does not create a demand for its particular class of products.

The object of advertising is simply to create a demand. Then the advertiser must be able to furnish to the consumer, with the least possible delay and difficulty, the goods which he has been taught to desire. This fact is understood by all successful advertisers and is kept in mind definitely in working up an advertising campaign, but there are other factors to be considered besides the consumer. Every step in the journey from the producer to the consumer must be studied, and in the case of lumber these steps are sometimes very numerous. The man who is about to build a house may have been reading the advertising matter relating to a particular class of lumber and have persuaded himself that it is the best material for his home. The manufacturers of this class of lumber may be prepared to furnish it satisfactorily and it would look as though conditions were alright for the completion of a deal. But there are a few other factors which the manufacturer often overlooks and it is the object of this article to impress upon them the importance of systematizing their advertising efforts so thoroughly as to eliminate the possibility of these factors nullifying their work.

After the lumber manufacturer is ready to sell his stock and the consumer is wanting it, other parties may influence the situation. There is the contractor, the architect, and the lumber dealer. Money which has been spent upon creating a demand on the part of the man who is building a house is wasted unless the lumber dealer, the architect and the contractor are ready to back up the efforts of the advertiser. One or other of them, possibly all of them will find it an easy matter to persuade the prospective customer that he is wrong and that other varieties of lumber will fill the bill to greater advantage. It is in the direction of preventing this kind of unfairness that advertising in conjunction with "system" can be confidently applied to the work, and it is also in this connection that very little in the way of systematic effort has been carried on. To be convinced of this, one needs only to consider the attention which has been given to the same problem by the manufacturers of many other building materials which are advertised as substitutes for lumber. Very recently a tendency has been noticeable towards remedying this evil and the results already indicate that the movement will grow.

An important point in connection with advertising is the necessity for keeping in mind the exact results desired. A man who is advertising a particular line of lumber only wants to sell it. It is not necessay for him to discourage the use of other varieties of lumber. Every class of wood has its own particular excellence for certain lines of work. These are the points upon which to lay stress in advertising. It will bring better results if it is free from references to the fact that some other lines of wood are not so good for these purposes. There is nothing gained in the advertising of lumber by running down the other fellow's goods. The way in which the demand for several important varieties of lumber has been stimulated during the past few years by advertising, is a definite proof of this fact. This has been done by publishing clean cut assertions of the utility of the stocks advertised. It has created not only a local or temporary demand, but a widespread desire to use these particular kinds of wood, and a fairly general knowledge of their qualities and attractions. Those who are advertising lumber extensively and are studying the advertising proposition systematically are aware of the results which have been achieved of late in the direction of promoting the use of particular varieties of stock, not the output of one mill alone, but of a whole district. These people know now that the outlook for improving the whole lumber selling business by means of systematic publicity has become far more encouraging. They are expecting to see a day, not so far in the future, when business "system" as applied to advertising will have opened the way to the correction of a great many of the errors and difficulties which have been a great burden to the trade in the past.

A Campaign Against the Use of Lumber

The lumber trade has had so much to contend with lately in the way of business troubles that it would seem as though any new trouble could scarcely make any impression upon it. General trade depression, followed by the war, have brought about a great reduction in the actual amount of lumber which is passing from the manufacturer to the consumer; but as if this condition were not enough to depress the business spirit of the lumberman, the enemies of lumber in the business world have lately organized a great national campaign in the United States, the effects of which are likely to be felt in Canada. The chief competitors of the lumber trade are the manufacturers of other building materials such as brick, cement, tile, etc., all of whom have made much of the claim that their products are far less subject to destruction by fire than those of the sawmill. When these arguments were confined to individual claims by sales agents, the lumber trade was able to meet them by the same methods without suffering greatly. To-day however, there is a great national movement in the United States to stimulate the sale of these other building materials by means of an organized campaign directing its efforts definitely against the use of lumber. Associations have been formed in many important centres for the ostensible purpose of "eliminating the fire risk," and they have given themselves names indicating that this is their only object. Their members however, are those who are interested in the sale of such other building material as brick and cement, also the insurance companies whose interest is to enlarge their net profits. None of them are likely to have any mistaken ideas as to the real results of the campaign.

These associations are making extraordinary efforts to obtain their end. The campaign upon which they have entered has already been successful to such an extent that 37 cities have adopted building codes, restricting the use of wood, and many others are considering similar legislation. The National Board of Fire Underwriters is distributing broadcast a printed "code of suggested ordinances for small municipalities." The quiet and efficient methods of working which are being adopted are such as to command admiration, though they may not always command respect. Many affiliated organizations are sending out similar material and the natural result of success in connection with these efforts will be an increase in the net earnings of insurance companies and of manufacturers of so-called "fire proof" materials.

The lumber trade and industry in the United States has commenced to see in this movement a threat of great injury to its business and is taking steps to oppose it. Although the movement has not extended to Canada in anything like the definite form which it has assumed in the United States, there is no question that the day will come soon after the movement has met with any success in the United States, when it will be carried into Canada as well. We do not wish to urge lumbermen to take steps which will enable anyone to point them out as seeking to discourage the efforts directed towards the re-

duction of the annual waste by fire. We believe however, as every lumberman knows, that a campaign adopted by such interests as those which have taken up this movement in the United States, cannot fail to be based upon an unsafe foundation. Insurance people and the fire proof building material people cannot be safe guides towards the prevention of fire. Their interests are too closely connected with the movement and their efforts must surely bring unfair injury to the lumber trade. No matter how fairly they may desire to look upon the situation, their views cannot be unbiased.

The interest of the lumberman in this matter is to let the public know what a valuable material lumber is for building purposes, and to what a great extent even, it can be used in connection with a fire prevention campaign. Above all other things fire prevention methods must prevent. They may do other things, but prevention is the essence of the matter, and when prevention comes to us in company with the promotion of private interests, we must suspect its genuineness. By the same reasoning it would be natural to feel that the views of the lumber industry should not be taken without question as to the use of lumber when fire prevention is under consideration. Lumbermen realize this fully and will not want to force their views upon the public, but will only wish to see that their views are considered and that the use of lumber is not restricted simply upon the recommendation of those who are interested financially in the use of other material.

In the United States this situation has developed almost to a crisis and the lumber industry is working hard to see that its interests are not unfairly injured. The campaign has come very close to Canada, indeed already affects Canada greatly, on account of the fact that Canadian lumber finds extensive sale in the markets of the Northern States, which are being invaded by the "fire proof" materials campaign. At Cleveland, Ohio, for instance, there is now a society advocating fire elimination, which is made up of builders' supply firms, brick manufacturers, etc. The organization is very active, with a paid secertary, and is receiving substantial support from manufacturers of brick, cement, tile, etc., throughout the State. If the organization were one for fire elimination solely, the lumber trade would probably back it up, as lumbermen believe in fire prevention as much as anyone else. The lumber trade would be glad to agree upon a plan for using only fire proof materials and heavy mill construction in downtown and badly congested districts. The Cleveland organization however, is not content with a restricted area of operation. It is doing everything possible to enlarge the fire district, or fire limits, of the city and the lumber trade considers this is unfair and entirely uncalled for. Accordingly the lumber trade is also organizing for the purpose of putting before the public the argument in favor of lumber and its long record of immunity from fire in residential districts. The movement to enlarge fire districts and eliminate wood and lumber however, is not local. It is a nation-wide movement and one which the lumber trade will have to combat by some national organization also, unless it is content to suffer very serious consequences.

Editorial Short Lengths for Busy Readers

The ordinary regulations governing the loading of timber have been suspended by the Canadian Government, following the example of the United Kingdom, so as to permit the export of pit props and other timber from the Dominion to Great Britain, where they are urgently needed. The Marine Department on October 14th wired to Mr. Thomas Robb, manager and secretary of the Shipping Federation at Montreal, stating that the department had been advised that masters or owners of vessels arriving in the United Kingdom from Canadian ports between October 31 and November 15 with summer deck loads of wood goods would not be proceeded against by the Board of Trade. The department had, therefore, decided to allow steamships to load accordingly in Canada up to November 7. Similar steps have been taken in Great Britain in the case of Russia, although as a matter of fact Russia can provide very little lumber because of the closing of the Baltic.

The war's effect upon the lumber industry of New England has thus far been negligible, so far as the real needs of the territory are concerned, and actual consumption of lumber throughout the territory has not been largely reduced, says the Lumberman's Review. If the war continues six months or more the effect upon next year's output will furnish the chief cause for concern. Already the purse strings in Canada have been tightly drawn against commercial enterprises that cannot produce the soundest kind of collateral, for that country has its hands full financing its military establishment and aiding the mother country. The New England banks and other loaning institutions are moving cautiously, and reports are coming to the surface daily which make it clear that many lumbering enterprises will be forced to curtail through failing to secure the usual accommodations from the banks. However, production in Canada will undoubtedly be more extensively curtailed than on this side of the line, and already the demand for spruce deal for delivery in Great Britain has been so active that the price has been forced up three to four dollars per thousand, and it is reported that several substantial contracts have already been made with both American and Canadian shippers operating mills in Canada calling for the shipment of deals right through the winter months. This business has been based upon the assumption that the British fleet will be able to keep the ocean lanes open between the St. Lawrence and the English Channel. Lumber in almost any form has in war times always been classed as contraband.

Reports upon hardwood operations in the southern States, which have been published by the Southern Lumberman, as received from 287 representative mills show that 138 of them have shut down and 51 are running on part time only. Stocks on hand show an average increase of 39.6 per cent. at 96 mills and a decrease of 29.4 per cent. at 49 mills. Commenting upon the reports the Southern Lumberman says: "The monthly cut of mills reported as wholly shut down totals approximately 100,000,000 feet. The monthly curtailment indicated in reports from operations not wholly shut down, but running on reduced hours, or with reduced output, totals in round numbers 40,000,000 feet. Adding these two totals we have an aggregate monthly curtailment of 140,000,000 feet. The monthly production of hardwoods for 1913 (the latest year for which government statistics are available) was 673,705,000 feet. If no other curtailment is in effect than that shown in the reports below, the monthly curtailment based on the government figures for 1913 is 20.7 per cent.

"The 287 mills from whom reports were received have total monthly capacity of 200,000,000 feet. Their reports, as we have seen, indicate monthly curtailment of 140,000,000 feet, or 70 per cent. of their capacity. If these mills can be taken as a fair average of the thousands of mills, big and little, cutting hardwood, then the monthly curtailment now in effect, figured on the government's report of hardwood cut for 1913, reaches the enormous figure of 475,593,500 feet.

"Even with a liberal allowance made for inaccuracy in the government reports we assert with confidence that the figures amply bear out our statement that the present curtailment of hardwood production is not less than 30 to 40 per cent. of normal production."

Another trade publication has made a close canvass of the sawmills of Texas and of Louisiana, and finds that production, when compared with the output at this same time last year, has been curtailed in those two States by approximately 106,000,000 feet per month. The yellow pine mills in Alabama, and many of the cypress mills in Louisiana and Texas, seem to be following the other course and are cutting quite freely. Many of the yellow pine operators express confidence in an early cesation of hostilities in Europe to be followed by an important and hurried call for supplies. The cypress men feel assured that by the time their stock is in shipping condition there will be demand enough to take care of it. The Pacific Coast mills, on the other hand, find demand at a standstill, though they had looked with confidence toward that day when the opening of the Panama Canal would bring the world to their mills for supplies.

Quebec Timber Lands Auction Sale

The Department of Lands and Forests, Quebec, on October 20 offered for sale by public auction a number of permits to cut timber in certain districts. The average price obtained was $238 per square mile, permits for 1,036 square miles being sold.

In the Lake St. John East district, the sales were as follows:—Anse, St. Jean A, 6¾ square miles, $130 per square mile, to Joseph Girard; Anse St. John B, 5½ square miles, $105, to Auger & Son; township of Simard No. 2, 10 square miles, $255, to Tremblay & Gagnon; township of Cimon No. 2, 1 square mile, $205 to Auger & Son; township of Falardeau No. 61, 9 square miles, $255 to Tremblay & Gagnon; township of Sagard, 20 square miles, $205 to V. M. Thereault (in trust).

In the Matapedia Valley district, Causapscal, 3½ square miles and Causapscal No. 2 9 square miles, were sold at $255 per square mile to Albert Lemieux.

Limits in the district of St. Laurent of Metapedia were sold as follows:—River Assemetquagan, 222 square miles at $265 per square mile to Donald Fraser & Sons; Little River, east branch, 13 square miles at $265 to Champoux and Bros.; Flat Land Brook, No. 2, 3¾ square miles at $265 to Alexander Pratt.

In the district of Rimouski west, Upper River Mistigougeche, 45 square miles were sold at $390 per square mile to the Shives Lumber Company.

In the district of Gaspe West the sales were as follows:—township of Taschereau, 1½ square miles, $225 per square mile to Marsouins Lumber Company; township of Cap Chat, River Ste. Anne, 2 2-3 square miles, at $185 to Germain Leclerc; township of Tourelle, Beaver Brook, 1 1-3 square miles at $155, to Marsouins Lumber Company; township of Duchesnay Arbour Brook, 2¼ square miles at $155, to Joseph Rioux; township of Christie River Marsouins, 4½ square miles at $155, to Marsouins Lumber Company; township of Christie River a la Martre, 3 square miles at $155, to Germain Leclerc; township of Christie Valley Brook, 6 square miles at $105, to Frank Bigouell.

In the district of Bonaventure West, the River Escuminac Limit, No. 7, 6 square miles, was sold at $255 per square mile to W. H. Miller & Company.

In the district of Lake St. John Northwest, the Limit, River Ashuapmouchouan and du Chef, 634 square miles, was sold at $230 per square mile, to the British Canadian Industrial Company.

In the Saugenay Agency, the Little Rivers Limit, township of Manicouagan, 5½ square miles was sold at $105 per square mile to Auger & Son.

An Interesting International Freight Rate Case

An important and interesting case recently came before the Interstate Commerce Commission of the United States, relating to through freight rates from Canadian to United States points which are alleged to be excessive. The case is that of the International Paper Company against the Canadian Pacific Railway et al. The International Paper Company asks that the rates be declared unjust and unreasonable. The International Paper Company, in their case stated that if the Canadian railways chose to participate in such joint through rates, they made themselves amenable thereby to the jurisdiction of the Interstate Commerce Commission. The representative of the Canadian Railroads argued that the Commission has no jurisdiction over the Canadian rates and that if it took any action it would be virtually an attempt to reverse a decision of a Canadian Court of Record. The Dominion Board of Railway Commissioners, said Mr. Harding, representing the railroad companies had already decided that on the reverse proposition they had no jurisdiction over rates originating in the United States. They had displayed an attitude of international friendship and it would be only an act of courtesy on the part of the Interstate Commerce Commission to abide by the Canadian decision.

The rates under consideration were instituted in 1900 and the complainants held that they had been greatly increased since that time, also that the carload minimum had been increased. The increases involved were on an average of 1c. per hundred pounds, almost all of which was going to the Canadian roads. The traffic most directly involved is that of pulpwood used mainly by New York paper mills.

U. S. Collecting Duty on Ceiling and Drop Siding

Quite an important matter to Canadian firms exporting certain lines of lumber to the United States has been brought up by a recent ruling of the United States Customs Department officials. In the Minneapolis market, salesmen representing manufacturers in the Canadian northwest assumed that the present tariff law, which was enacted last year, placed practically everything in manufactured lumber of soft woods on the free list and shipments have been coming forward with that understanding.

Since the war broke out trade in Canada has dropped off materially and a number of manufacturers of that country have been energetically soliciting business on this side of the line. Undoubtedly they will continue to do so, but their ability to ship to the United States will be somewhat restricted by the new ruling on the tariff. The tariff law as enacted by congress last year provides that timbers, sawed boards, planks, deals and other lumber of white wood, sycamore and basswood, sawed lumber, not specially provided for, lumber of any sort when planed or finished one, two, three or four sides and tongued and grooved are admitted free of duty. However, Section 647 of the Underwood-Simmons bill which provides for the free admission of lumber reads as follows: "Wood. Logs, timber, round unmanufacturer, hewn, or sawed, sided or squared; * * * sawed boards, planks, deals and other lumber not further manufactured than sawed, planed and tongued and grooved; clap-boards, lath, pickets, palings, staves, shingles, ship timber, ship planking, broom handles, sawdust and wood flour; all the foregoing not specially provided for in this section."

It appears that the custom officials have decided that bevelled ceiling and drop siding are "further manufactured" and under the tariff law are dutiable at the rate of fifteen per cent. ad valorem. It is possible that the decision of the tariff officials is based on Section 176 of schedule "D," which reads as follows:

"House or cabinet furniture wholly or in chief value of wood, wholly or partly finished, and manufacturers of wood or bark or of which wood or bark is the component material of chief value, not specially provided for in this section, fifteen per centum ad valorem."

The Ontario Workmen's Compensation Act

The Canadian Manufacturers' Association has, through its legal department, sent out the following notice to its members in reference to the working of the Workmen's Compensation Act: "It has been announced that the new Workmen's Compensation Act of Ontario will go into effect on January 1. The act, as you know, is in general outline based on proposals made by the association and we take this opportunity of urging our members, notwithstanding the many and serious defects of the measure, to extend to the administering commission their earnest co-operation in making it as successful as possible. As we have already advised you, considerable portions of the Act will have to be abandoned to make it workable, but we believe we may confidently expect that the administering board will make every effort to work out a fair and reasonable system, and we should like to urge upon our members that notwithstanding the unsatisfactory circumstances attendant upon the passing of the measure nothing in the way of co-operation and sympathy on the part of employers should be wanting to assist the board in its difficult task. The legal department of the association will be at the disposal of members either for the purpose of advising or assisting in straightening out any difficulties that may arise, and we would respectfully suggest that you utilize the department freely."

War Prices in Canada

The effects of two months of the world's war on Canadian prices are summed up in a rise of the Labour Department's index number from 135.5 as calculated at the end of July to 140.7 as worked out at the end of September. These numbers are percentages of the general level of prices in the decade 1890-1899 and are based on quotations from 272 articles scattered over the whole field of production and consumption.

Most of the rise took place during the three weeks following the declaration of war. In fact the last half of September saw general steadiness and even a tendency to decline in important articles like grains and cattle.

Though a rise of 5 points in the Department index number is very marked it is not without precedent. Canadian prices during the trade boom of 1912 went up at intervals with almost equal rapidity, and the readjustment of prices at the close of 1911 sent the index number up 4 points in a single month.

It has also to be remembered that several articles which have contributed very materially to sending the index number up during the last month are not of first importance in consumption.

Retail prices, of which the Department is receiving quotations for over 30 articles in every town of 10,000 and upwards in Canada, were, on the whole, steady in September after the first upward movement following the war. In flour and sugar further advances occurred in most of the cities, but in other commodities prices were quiet. Rents were downward in some fifteen localities throughout the Dominion.

It is interesting to note that in England the Economist's index number went up 6 per cent. during August, the rise being greatest in foodstuffs and least in minerals, while the Statist's index number went up from 82 at the end of July to 87 at the end of August. Bradstreet's index number for the United States went up 12 per cent. in August, but has eased off slightly since. The crest of the high prices wave seems to have come about two or three weeks after the declaration of war.

Canada's Foreign Trade in Lumber

Exports of Forest Products Show Only Slight Drop—General Imports Decreased—Pitch Pine Imports Increased

A report upon the imports and exports of Canada for the fiscal year ending March 31st, 1914, has been issued by the Department of Customs. The following tables are taken from this report and from the corresponding report for 1913. The imports of lumber as shown by this report fell off in value by nearly $3,000,000. The imports of pitch pine showed an increase of about 17,000,000 feet, and an increased value of nearly $500,000. The imports of oak fell off by about 18,000,000 feet and their value showed a decrease of about $560,000.

Exports of forest products from Canada were almost the same as in the previous year, showing only a falling off of about $290,000 in value.

Forest Products Exported

Following is a summary statement of exports of forest products from Canada to all countries during 1914 and 1913.

		1914		1913	
		Quantity	Value	Quantity	Value
Ashes, pot and pear	Brls.	434	19,218	550	25,437
" all other	$	.....	29,644	.....	36,703
Bark for tanning	Cord	4,833	25,577	5,802	29,842
Firewood	"	16,403	49,608	16,700	49,419
Knees and futtocks	No.	30,526	33,404	14,139	20,597
Lathwood	Cord	72	258	895	3,392
Logs, cedar, capable of being made into shingle bolts	$	.....	376,046	.....	.....
" elm	$	.....	33,721	861	14,640
" hemlock	$	.....	11,276	922	7,539
" oak	$	.....	811	.....	.....
" pine	$	.....	62,743	1,567	24,371
" spruce	$	.....	95,483	4,066	45,874
" tamarac	$	.....	23,478	.....	.....
" all other	$	.....	212,836	93,802	936,032
total, logs		.....	818,389	101,218	1,028,456
Lumber, viz.: Battens	$	.....	5,426	.....	.....
Basswood	M. ft.	687	14,992	1,009	24,595
Deals, pine	St. hund.	20,375	1,408,709	19,956	1,386,708
" spruce and other	"	149,638	6,547,854	134,835	5,513,543
Deals ends	"	7,124	294,195	6,086	228,399
Hickory	M. ft.	59	2,993	26	1,318
Laths	M	608,921	1,699,221	700,789	1,789,969
Palings	"	2,909	20,657	80	805
Pickets	$	.....	206,573	39,722	214,355
Planks and boards	M. ft.	999,311	19,528,675	1,149,022	20,840,190
Scantling	"	87,233	1,264,881	106,312	1,454,238
Shingles	M	689,150	1,775,619	564,019	1,409,116
Shooks, other	$	.....	191,001	.....	266,892
Staves—other and headings	$	.....	70,918	.....	58,878
All other lumber, n.o.p.	$	.....	260,630	.....	250,376
Total, lumber		.....	33,286,344	.....	33,439,382
Match blocks	$	.....	6,739	.....	4,557
Masts and spars	No.	299	3,499	319	4,624
Piling	$	.....	176,959	.....	130,969
Poles, hop, hoop, telegraph and other	$	.....	127,438	.....	66,908
Posts, sleepers and railroad ties	$	.....	269,365	564,758	221,530
Shingle bolts, of pine or cedar	Cord	13,582	47,132	7,853	27,769
Timber, square, viz.:—					
Ash	$	.....	3,414	113	2,375
Birch	$	.....	134,276	18,794	234,242
Elm	$	.....	319,797	8,466	254,969
Oak	$	.....	260,223	9,569	259,498
Pine, red	$	.....	31,343	1,856	64,144
Pine, white	$	.....	315,509	26,397	943,734
All other	$	.....	30,645	1,766	20,122
Total, timber, square		.....	1,095,207	66,961	1,779,084
Wood, blocks and other, for pulp	Cord	1,089,384	7,388,770	1,003,739	6,806,945
Other articles of the forest	$	.....	8,536	.....	4,069
Total, forest		.....	43,386,087	.....	43,679,623

Forest Products Imported Free of Duty

Following is a summary statement of imports of forest products, free of duty during 1914 and 1913.

		1914		1913	
		Quantity	Value	Quantity	Value
Cork-wood, unmanufactured	$	.....	34,212	.....	44,797
Bark, hemlock	Cords	340	2,330	263	1,616
Felloes of hickory or oak	$	.....	79,861	.....	112,238
Handle, heading, stave and shingle bolts, n.o.p.	$	.....	219,221	.....	262,428
Hickory billets	$	.....	69,995	.....	86,246
Hickory and oak spokes	$	.....	231,328	.....	308,820
Hub, last, waggon, oar and gun blocks	$	.....	74,989	.....	136,733
Ivory nuts (vegetable)	$	.....	70,222	.....	70,224
Fence posts and railroad ties	$	.....	2,326,843	.....	1,856,711
Logs and round unmanufactured timber	$	.....	679,816	.....	1,001,717
Lumber and timber, planks and boards—					
Cherry, chestnut, gumwood, hickory and whitewood	Ft.	23,226,168	805,169	26,329,658	892,963
Mahogany	"	2,827,134	338,820	3,785,111	475,148
Oak	"	62,847,785	2,660,839	80,787,684	3,227,113
Pitch pine	M. ft.	135,348	2,912,363	118,868	2,435,376
Red wood	Ft.	289,854	11,761	240,434	8,853
Rose wood	"	6,598	2,628	11,155	2,411
Spanish cedar	"	812,074	75,108	797,190	68,315
Sycamore	"	805	37	35,310	852
Walnut	"	485,881	28,764	621,064	43,857
White ash	"	2,416,879	119,552	3,859,460	204,847
Miscellaneous	$	.....	31,188	.....	45,543
Timber	$	.....	523,241	.....	809,560
Planks, boards, etc., dressed one side	M. ft.	238,688	4,428,341	382,963	6,089,548
Pine and spruce clapboards	"	7	108	.....	.....
Laths	M.	35,016	82,532	81,017	178,325
Pickets	$	.....	621	.....	1,101
Shingles	M.	53,871	104,166	143,965	277,551
Staves of oak, sawn, split or cut, not further manufactured than listed or jointed	"	5,567	181,624	8,793	305,329
Total, lumber		.....	12,306,865	.....	15,057,692
Sawdust of woods, of all kinds	$	.....	14,501	.....	32,201
Treenails	M.	17	1,190	.....	.....
Wood for fuel	Cords	29,072	89,936	43,937	149,677
Total, forest		.....	16,201,612	.....	19,141,410

Imports from the United States

The chief imports of forest products, free of duty, from the United States into Canada during 1914 and 1913, were as follows:—

United States Free Imports		1914 quantity ft.	1914 value $	1913 quantity ft.	1913 value $
Fence posts and railroad ties	Ft.	.....	2,326,843	.....	1,856,711
Logs and round unmanufactured timber	"	.....	648,200	.....	997,099
Mahogany	"	2,333,522	282,487	3,378,120	429,973
Oak	"	62,272,436	2,629,788	80,644,522	3,218,870
Pitch pine	"	135,348,000	2,912,363	118,868,000	2,435,376
White ash	"	2,416,879	119,552	3,859,460	204,847
Timber, hewn or sawn, etc.	"	.....	521,825	.....	800,560
Planks, boards, etc., dressed one side	"	238,406,000	4,423,245	382,774,000	6,087,569

Exports to the United States

The principal forest products exported to the United States during 1914 and 1913 were as follows:—

Articles	1914 quantity	1914 value $	1913 quantity	1913 value $
Cedar logs	.....	376,024	.....	.....
Pine deals	St. hund.	1,061	61,616	1,956	78,355
Spruce deals	"	11,876	513,883	18,155	743,561
Laths	M.	597,420	1,669,547	680,372	1,743,248
Planks and boards	M. ft.	802,904	15,257,076	926,620	16,248,542
Scantling	"	56,628	847,290	76,875	1,079,107
Shingles	M.	666,512	1,738,879	542,311	1,374,569

Exports to the United Kingdom

The principal forest products exported to the United Kingdom during 1914 and 1913 were as follows:—

Articles	1914 quantity	1914 value $	1913 quantity	1913 value $
Pine deals	St. hund.	19,100	1,322,326	17,507	1,285,863
Spruce deals	"	136,147	5,947,348	114,797	4,683,821
Deal ends	"	6,159	249,088	4,403	176,499
Planks and boards	M. ft.	74,582	1,772,368	81,618	1,825,549
Scantling	"	27,282	367,335	24,142	278,306

English Pit Prop Requirements

W. Windham, chairman of the British Commission, which recently visited St. John, N.B., and other points in Eastern Canada, to inquire into the pit prop prospect, has written to the secretary of the board of trade from Ottawa expressing regret that the limited time at their disposal rendered it impossible for the commission to prolong its stay at St. John. He remarks further: "I should be very glad to receive from the members of the St. John Board of Trade, and any others interested, further information as to possible sources of supply. The number of pit props required is approximately 1,000,000 per week, and the measurements from 2½ in. to 7 in. diameter at small end, and about 3 ft. to 12 ft. in length. The wood should be spruce, fir or pine, and separate prices (either by lineal or by coard measure) should be quoted for each size, delivered alongside ship, if possible. Any such particulars should be communicated without delay to H. M. Trade Commissioner for Canada and Newfoundland, No. 3 Beaver Hall Square, Montreal, P.Q."

The Timber Trades Journal, London, England, in its issue of October 10th states that it received from Ottawa, under date of October 1st, the following telegram:—

"Representatives of the British Board of Trade were conferring here with the Dominion Minister of Trade and Commerce in regard to the supply from Canada of pit props, which have hitherto been imported from Russia and Norway. It has been ascertained that there is abundance of suitable timber, but prices here are higher than those previously paid."

Commenting upon this the journal says:—"The difficulty, so long as the seas are open, is clearly a matter of price, the question of the goods being contraband in German eyes takes a secondary place. The object the coal interest is considering is to obtain supplies at or near those ruling before the present state of war. That a substantial advance must be paid, unless the Government grants a subsidy on this branch of raw material, goes without saying: goods of this class from the American Continent have to be conveyed greater distances to the loading ports than is the case in the Baltic; they have to meet a higher rate or cost of labour, a longer sea journey than from France and the North of Europe, and higher rates of freight and insurance. That a new basis of price will be fixed or arrived at in a few days is fairly certain, and when that is done there will be a chance of the English woods and plantations taking an active part, whereas in the face of prices ruling until two months ago, they were, so to speak, out of court. Many of the collieries had two months ago supplies on hand and in prospect that would last them about three months at old rates, at the end of which agreements at advanced prices must be arrived at; indeed, the outlook at present seems a long one for the return of prices to those that obtained on this class of wood before the outbreak of the war. Supplies are looked forward to from the White Sea, but it is unfortunate that those shipping ports are annually so long and powerfully held in the grip of King Frost. The Welsh collieries with their Welsh and Spanish connections and supplies are in a better position than those of England or the North."

A Busy Pulp and Paper Making Centre

Windsor Mills, P.Q.—Scene of Manufacturing Operations of the Canada Paper Company, Limited—An Outline of its Growth and Equipment

THE pulp and paper manufacturing industry in Eastern Canada is experiencing an unprecedented period of activity as a result of the heavy demand for newsprint paper requirements for publishing extra editions, and also as a result of the interference with productive capacity in countries now at war. Every mill in Eastern Canada is working practically to its utmost capacity to meet the new demand. Fortunately, the capacity of these mills has recently been added to extensively as a result of the policy of the various governments of encouraging the manufacture of the raw material into a finished product at home. The old-established plants as well as the newer ones are feeling the urgency of this demand.

Among the best known plants in Canada are those of the Canada Paper Company, Limited, whose mills are located at Windsor, P.Q., on the main line of the Grand Trunk Railway, from Montreal to Portland, and on the Windsor Mills branch of the Canadian Pacific Railway. This plant consists of two paper mills each containing two paper machines, a ground wood pulp mill and a chemical pulp mill. The Windsor mill is situated on the Ouatapekah River, a tributary of the St. Francis River, about one-eighth mile from the Grand Trunk Station. The St. Francis mill is situated about one-third mile further south and is on the main stream of the St. Francis River.

Large Limits of Splendid Spruce

The limits from which the Canada Paper Company secure their timber are mostly on the Ouatepekah River, within a few miles of the mills, and they contain some of the finest spruce to be found on this side of the continent, the trees running up to 36 ins. in diameter. The butt logs of these big trees contain much excellent timber which can be very advantageously turned into lumber or dimension. These are held aside for this purpose and the rest of the tree is converted into pulpwood.

From the woods, the timber which is to be manufactured into paper is floated down the river in the spring, and is taken from the river during the summer by means of a chain conveyor. Some of it is used in the mills at once, and the rest is stored beneath trestle conveyors, for use during the winter months. In the groundwood pulp mill the wood is carried to a saw which cuts it into 2 ft. lengths. Then it goes to the barkers where knives projecting from the face of a rapidly revolving disc, quickly remove the bark which goes to the boiler room for fuel.

The "rossed," or prepared wood, thus obtained goes to a conveyor which takes it to the grinder room where it is loaded on trucks and taken to the grinder. The grinding department consists of 12 standard 3-pocket grinders, which connect to a 350 h.p. wheel. The grinders are 54 ins. in diameter by 27 ins. face and the wood is held against the face of the stones with a pressure of from four to five tons. Leaving grinders the pulp is diluted with water and pumped to the screens which remove the coarser particles that are unfit for the grades of paper being made. Some of the screens are of the flat type and some are of the centrifugal type. From the screens the stock goes either to the deckers where the surplus water is removed and it is thickened to a consistency suitable for use in the beaters, or it goes to the wet machines where it is brought to the form of "laps" suitable for storing or shipment. All of the ground wood manufactured is used in the company's paper mills. The wet machine equipment consists of five deckers or feltless wet machines, and six 72-in. wet machines.

In the beaters, the ground wood pulp together with a certain amount of chemical pulp and the necessary coloring matter, size, clay, etc., are thoroughly mixed and by the action of the beater-roll the fibres are beaten or "brushed out" for the proper length of time to produce the desired grades of paper. The beater room equipment consists of four 2,000 lb., three 1,000 lb., beaters and two refining engines. After having passed through the refining engines or Jordans, the stock is ready for the paper machines of which there are two, one 92-in. and one 156-in. Fourdriniers.

How the Chemical Pulp is Made

At the chemical pulp mill the wood is used in the four-foot lengths. It first passes to a "chipper" by which it is cut into thin chips which are then conveyed by a belt-conveyor to the chip storage over the digesters. These digesters are large upright boilers some 30 to 40 ft., in length of which there are four. In them the wood is acted upon by steam under heavy pressure and chemicals until the intercellular matter has been dissolved, leaving only the cellulose or pure fibre. The mass is then blown from the digester into pits where the pulp is thoroughly washed, after which it is pumped to the screens where the coarser particles are removed. Flat screens are used at this mill. From the screens the stock goes to two 72-in. wet machines. The greater part of the pulp made at this mill is bleached for use in the high grades of paper made at the Windsor mill. The beater room equipment consists of two bleaching engines, four 600 lb., and four 800 lb., beaters and two refining engines. The two paper machines at this mill make "writings," "book" and various high grade specialties in various shades and weights.

From the two mills the paper (of which the company make some 70 tons per day) is shipped either to their branch houses at Montreal and Toronto, or direct to their various customers all over Canada, United States, Great Britain, South America and New Zealand. One can almost tell where the various foreign shipments are going, by the manner in which they are packed. For instance the company sends considerable paper to Peru which has to be put up in small, strongly packed bales which are carried over the mountains on the backs of mules.

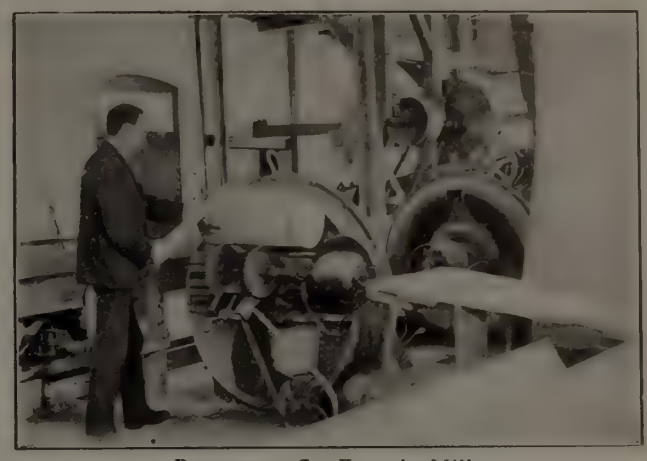
A large and well equipped carpenter shop and machine shop form a part of the company's plant where all necessary repair work is done. A cehmical and testing laboratory is maintained where the manufactured products and the various supplies and materials entering into the manufacture are inspected and tested, and where considerable experimental work is carried on.

The history of the Canada Paper Company's growth is one of

St. Francis Mill, general view.—Canada Paper Co., Ltd.

Finishing Room, Windsor Mill.—Canada Paper Co., Ltd.

Grinder Room (12 grinders) St. Francis Mill.



Rossers at St. Francis Mill.

continued and steady expansion, indicative of capable management and far-seeing business ability. The town of Windsor Mills which has grown up around the company's plant is fifteen miles from Sherbrooke, P.Q., and the industry was in the first place a Sherbrooke one. The firm has been in business for over fifty years, having been founded by Messrs. Angus, Logan & Company in Montreal in 1859. Shortly after this the company had in operation a small paper mill on the Magog River in Sherbrooke, but not being satisfied with a leased power they established a mill at the village of Windsor Mills about 1862. In 1864 they established what they claim to have been the first pulp mill in Canada, and the second pulp mill in North America. Subsequently, the firm of Wm. Angus & Company, under which the business was then known sold out to the Canada Paper Company who have operated the plant ever since. At the mill at Windsor, Mr. Wm. Angus states, the first chemical pulp and paper produced in Canada was manufactured.

Rapid Growth From the Outset

The business of the firm grew rapidly and in 1873 the old firm was formed into a limited company, with Mr. Wm. Angus as president and Mr. Thomas Logan as works manager. Shortly after this the company built a second mill, the Springvale mill, a short distance up the Ouatapekeh River. This mill turned out 12 tons per day which was considered an excellent performance in those days.

The product of the mills at that time was sold through the wholesale stationery house of Messrs. Angus, Logan & Company, in Montreal, and in 1879 a branch was established in Toronto under the charge of Mr. John MacFarlane, who afterwards became president of the company. In 1898 the ground wood pulp mill was established on the St. Francis River, and paper machinery was added subsequently. In 1901 this pulp and paper mill was entirely destroyed by fire. The loss was met by an issue of preferred stock, and some changes in the directorate were made. Sir H. Montagu Allan was elected president and Mr. F. J. Campbell, then manager of the Toronto branch was appointed general manager. The head office was moved to Windsor Mills and work was commenced on what is now the company's St. Francis mill which began operation in 1902.

In 1908 Mr. Joseph Kilgour, of Toronto, became associated with the company and shortly afterwards was elected president. Then the company undertook the re-construction of its old mills. The Springvale mill was dismantled, and the Windsor mill was entirely rebuilt, with a capacity equal to the product of the two old ones. The Windsor mill is now one of the most efficient in the country, and is designed for the economic production of colors, and fine wood pulp papers. The company own their land in fee simple and have large and unbroken limits on the Ouatapekeh and Stoke Rivers.

At the present time Mr. Joseph Kilgour is president of the company and Sir H. Montagu Allan, vice-president. The executive management is in charge of Mr. F. J. Campbell, general manager; Mr. H. B. Donovan, manager of sales, and Mr. H. M. Thorne, secretary-treasurer, all of whom have been with the company for several years.

Foreign Opportunities for Canadian Paper

The Dominion Trade and Commerce Department has issued a bulletin to Canadian pulp and paper manufacturers relative to the opportunities offered them in foreign markets. Commissioner McKibbin reports from Johannesburg that South Africa wants Canadian paper. He points out that newspapers there which formerly issued but one edition now get out three per day, states that local stocks of paper are getting low and that "this increased daily issue of news should warrant increased demand for Canadian paper."

Commissioner Ray reports from Birmingham that "paper of all kinds is scarce in the United Kingdom at the present time, and the scarcity is likely to continue until communication with European sources of supply becomes normal again. Even after the cessation of hostilities it is obvious that British importers will rely upon Canada to furnish considerably larger consignments than in the past. Several firms have already sent buyers to Canada and many inquiries are being received at this office for printing paper."

The total amount of paper for printing or writing, on reels, imported by Great Britain from foreign countries last year amounted to $5,035,000 in value. The bulk of this supply with the exception of $103,000 from the United States, will now be cut off. The total amount of paper for printing and writing, not on reels, imported from foreign countries, was $4,384,730, $400,000 worth of this being from the United States. Imports of packing and wrapping paper were valued at $14,186,190. In this regard Commissioner Ray observes that there is the possibility of permanently capturing Germany's contribution, valued at$3,727,550. "One of the largest importers in Great Britain visited this office to-day and asked to receive samples and quotations immediately on packing and wrapping paper."

Paper and Soda Pulp Mills at Windsor Mills.

156 in. Paper Machine at St. Francis Mill.

Decline in B. C. Exports Discussed

A discussion of the lumber trade of British Columbia was the chief item at the quarterly meeting of the Victoria Board of Trade recently. In order to get the views of men fully informed on the subject, the board had invited E. J. Palmer, the well-known Chemainus lumberman; J. O. Cameron, and H. R. MacMillan, chief forester of the province, to be present. After the matter had been fully threshed out, the following resolution was unanimously passed:

"Whereas the timber resources of British Columbia constitute its largest and most readily available visible asset; and whereas, notwithstanding the new markets that have been opened for lumber from the Pacific Northwest, the exports of this commodity from British Columbia have not only decreased in volume, but also, in a remarkable degree, in proportion to the total exports from the coast; and whereas it is desirable in the public interest that, if any obstacles exist to the due development of the export trade in lumber from this province, they should be ascertained, and, if possible, removed.

"Therefore be it resolved that the council of this board be requested to have a memorial prepared setting forth in convenient form such facts as may be available, bearing upon the export trade in lumber from this province, and to take such other steps in connection therewith as may seem to it advisable.

In dealing with the huge decline of lumber exports from the province in the past few years, E. J. Palmer offered some very interesting figures. While in 1902 British Columbia had enjoyed 33 per cent. of the coast trade in lumber, in 1913 she had only 4 per cent. The combined foreign shipments from British Columbia, Washington and Oregon to all parts of the world for 1913 had reached a total of 600,000,000 feet. Of this the natural markets of Australia, New Zealand and the West Coast of South America had taken 371,000,000 feet, or about 62 per cent., Australia being the largest importer with 238,000,000 feet, or about 40 per cent., of which British Columbia had secured a share of barely 4 per cent.

To South Africa, a country in which Canada had a 10 per cent. preference on lumber, British Columbia had supplied 14,000,000 feet, or 64 per cent. of the total imports. This was a striking example of what a small preference had done for this province. He urged that representations should be made to Australia to give Canada a similar privilege in her markets. The lumbermen on the other side of the border were bending every effort to persuade Australia to take lumber from them, but he hoped British Columbia would make every effort immediately to get preferential treatment in the southern country.

J. O. Cameron furnished the board with additional information as to the causes of the slump in British Columbia exports of lumber. The demand for lumber in the prairie provinces had been so great that at one time the coast mills were hard put to it to satisfy all their orders from that source. In time, however, the American competitors had got into action, being able to keep up their export trade while entrenching themselves pretty firmly in the interior trade in Canada. This was possible because they paid no duty to Canada, while the American market was closed to British Columbia exporters.

Chief Forester MacMillan showed the board that the importance of encouraging the lumber industry of this province to the fullest extent lay in the fact that it is the most important feature of the foreign credit of British Columbia, and as such ought to be preserved and encouraged to the utmost. He gave some interesting statistics to indicate how the trade put a large volume of money into circulation and compared present conditions with those of some years ago.

Why Australian Trade Goes to the United States

Mr. O. C. Beale, of Sydney, Australia, who recently visited Vancouver, B.C., made some interesting remarks regarding the lumber trade with Australia. Mr. Beale has been twice president of the Associated Chamber of Manufacturers of Australia, and is one of the leading industrial authorities of the Commonwealth. The lumber demand in Australia is increasing, and there is opportunity in that country for Pacific Coast manufacturers. He says:—

"Americans are making steady progress in the lumber market of Australia, and it might be well for the lumber interests of British Columbia to make additional efforts for a fair share of this trade before it becomes so closely held by our cousins to the south as to cause it to be especially difficult to obtain. The bulk of our fir and pine importations are from the Pacific Coast, but not from British Columbia. The chief reason is, I think, that your lumbermen do not seem to have conformed to the requirements of our trade in as great a degree as have the Americans. Lumber has often been sent from British Columbia in cumbersome cargoes and in unsuitable sizes, whereas it should be prepared for the Australian market here and not there. If individual lumbermen, or groups of lumbermen, in British Columbia would send to Australia more representatives with sufficient information to talk, not generalities but specific orders from the start, there would be a corresponding increase in the volume of sales of British Columbia fir and pine to Australian buyers, providing of course, the shipments fulfilled our special requirements.

"Because of our tariff regulations, dressed lumber cannot, as a rule, be sent, but lumber can be sent in sufficiently advanced stages to make the business well worth while. We have plenty of imperial sentiment, and while we like to trade with Americans, there might be a tendency to favor the British Columbian product, other things being equal. There is no reason why a reciprocal trade arrangement should not be made between Canada and Australia, which would give your loyal people special advantage in our market. Not only the Americans, but the Russians are also making steady progress in supplying Australia. Siberian woods are becoming an important factor. Several mills have been established at Vladivostock, and they are looking keenly for Australian trade.

"I would say, therefore, that it would be well for British Columbian lumber interests to make a strong move before the obstacles become greater. We get along very well with the sons of Uncle Sam. We have entire confidence in the representative firms. We like their methods. An agent of a large lumber dealer or of a group will call upon us, ready to quote prices and conditions or any kind of an order and full of the information we desire. He knows his business and gets ours."

B.C.'s Shingle and Lumber Industry

In a recent report to his government, the U. S. Consul General at Vancouver, B.C., says:—There are in British Columbia 61 shingle mills, with a total of 313 machines, each machine having an average daily capacity of 25,000, making a total capacity of the mills in the province of 7,825,000 shingles per day. The maximum number of machines in one mill is 23 and the minimum 1. American capital is interested in 15 of the plants, operating 84 machines, with a total daily capacity of 2,100,000 shingles. The following table gives the number of mills and machines in the province:

Shingle Mills in British Columbia

Mills	Machines	Total machines	Mills	Machines	Total machines
5	1	5	2	11	22
11	2	22	2	12	24
13	3	39	1	14	14
10	4	40	1	16	16
5	5	25	1	17	17
3	6	18	1	23	23
2	7	14	—	—	—
2	8	16	61	..	313
2	9	18			

Exports Practically All to United States

Invoices covering shipments of shingles from British Columbia to the United States certified through the United States Consulate General shows a large increase in the exports during the past year. The exports from Vancouver to the United States for the first three-quarters of 1913 were 53,569,505, as compared with 64,994,647 for the corresponding period of the previous year. The exports during the last three months of 1913 were 90,899,865 shingles, as compared with 24,590,320 for the corresponding period of 1912.

The exports for the first six months of 1914 were 313,584,035, as compared with 144,469,370 for the entire twelve months of 1913. The shipments of shingles from Vancouver to the States for the last quarter of 1913 and the first half of 1914, covering the three quarters, show a total of 404,483,900, as compared with 78,159,825 for the corresponding periods of 1912 and 1913.

Practically the entire output of the British Columbia shingle mills is now exported to the United States, the industrial depression prevailing in Canada during the past year having seriously affected building operations in the western provinces.

The financial conditions incident to the war recently caused the shingle manufacturers in the province to reduce the wages of employees, which has enabled them to compete more successfully with the shingle mills in the United States, and in order to keep the plants in operation the manufacturers in British Columbia are devoting their energies to the extension and maintenance of their export trade, the bulk of which is to the United States.

Exports of Lumber to the United States

The lumber exports to the United States invoiced through this consulate general during the December quarter, 1912, were 205,724 feet, and for the last quarter of 1913 the exports amounted to 1,703,534 feet, an increase of 1,497,810. Exports for the last quarter of 1912 and the first half of 1913 were 1,861,100, as compared with 12,030,799 for the last quarter of 1913 and the first half of the year 1914, an increase of 10,169,799. The total exports to the United States for the year 1912 amounted to 1,009,123 feet; the total for 1913 was 4,186,600 feet and for the first six months of 1914 the shipments invoiced through this consulate general show a total of 10,327,265

feet—nearly ten times more than for the entire year of 1912, and approximately two and one-half times more than during the twelve months of last year.

There is little demand for lumber in Western Canada at this time, owing to the depression in the building trade, and the millmen are depending largely upon the market in the United States for an outlet for their products.

An Important Australian Contract

The Government of British Columbia, has cabled to Premier Fisher, of Melbourne, and to D. H. Ross, Canadian Trade Commissioner at Melbourne, to endeavor to secure for Canadian lumber firms the privilege of quoting direct upon orders for some 25,000,000 feet of lumber needed for the new Capitol Buildings at Canbarra. A commission has been appointed in San Francisco to receive tenders for the supply of this lumber and British Columbia mills must send their tenders to them. This will mean a handicap of at least 6 per cent. against the product of British Columbia in competition with the United States mills and therefore the province will do all it can to secure permission for tendering direct.

B.C.'s Forest Revenue for September

The total amount of forest revenue of the Forest Branch of the British Columbia Lands Department for the month of September, 1914, was $151,569.13, made up as follows:—

Timber Licence Fees	$105,728.55	
Timber Licence Transfer Fees	660.00	
Timber Licence Penalty Fees	355.00	
Timber Lease Rentals	4,346.40	
Timber Lease Transfer Fees	5.00	
Timber Mark Fees	24.00	
Handlogger Licence Fees	250.00	
Scaling Fees	2,222.07	
Scaling Expenses	129.75	
Timber Royalty	22,921.08	
Timber Tax	7,587.88	
Trespass and Penalties	727.10	
Timber Bonus	6,528.85	
Exchange	3.73	
Miscellaneous Revenue	9.50	
Timber Sales Rentals	42.22	
Timber Sales Cruising	21.90	
Timber Sales Advertising	4.80	
Interest on Leases	1.30	
Total	$151,569.13	
Collections for the Forest Protection Fund from Timber Licencees, Lessees, etc.	$10,087.43	
Contributed by Provincial Government	10,087.43	$20,174.86
Forest Protection Expenditure during month of September was		$85,211.56

The total amount of timber scaled in all districts was:—62,069,444 ft. B.M. of saw logs; 378,596 lineal feet of piles and poles; and 13,512.86 cords of railway ties, shingle bolts and cordwood.

The quantity exported from all districts was as follows:—10,074,891 ft. B.M. of saw logs, and 122,930 lineal feet of piles and poles.

Timber sales completed during the month of September amounted to 974,000 ft. B.M., the total estimated value being $1,560.73.

An Interesting Type of Lumber Vessel

F. A. Ballin, a naval architect, and E. H. Dodge, both of Portland, Ore., have obtained a patent from Washington, D.C., on plans for a new type of vessel for service in the coastwise lumber trade. The vessel can be loaded with 5,000,000 feet of lumber in an hour, it is said, and complete the round trip between Portland and San Francisco in seven days, including the time required in taking on and discharging her cargo. The plans prepared show it to be in the nature of a "dry-dock" steamship. It is to be built in such manner that it can be submerged to a sufficient depth to permit two sets of barges loaded with lumber to be floated into the hull through bow gates. Five of these barges can be placed in compartments on each side, each of the 10 loaded with 500,000 feet of lumber. After the gates have been closed and all the water used for submerging pumped out, the cargo deck will be above them. The operation for discharging the cargo consists of flooding the central lower portion of the hull with water until the vessel sinks and the bow gates have been thrown open allowing the barges to float out. There will be extra barges, making it possible for 10 to be loaded at leisure in port while the vessel is en route down the coast, carrying her capacity. It is expected that the system will prevent congestion of lumber on the docks. The barges are open and can be filled direct from the saws and planers. The vessel indicated in the plan is 650 feet long, with 80-foot beam, while each of the barges is 100 feet long, with 30-foot beam. For the return trip from San Francisco it is said the barges will be loaded with fuel oil, asphalt, cement and different kinds of general freight.

New Box Factory for British Columbia

A company composed of Boston capitalists, with $250,000 capital, plans a box factory on the Fraser River, adjacent to Vancouver, which will employ 200 persons. The location of the factory in British Columbia is due to the fact that a plentiful supply of the kinds of wood to be used in the construction of the boxes, including cottonwood, spruce, hemlock, fir, and alder, is to be obtained in the province at prices below those prevailing for the same class of material in the United States. That the plant will begin operations under favorable auspices is shown by the fact that orders have already been secured from Ceylon and India for a large number of tea boxes. The boxes will be manufactured by a process by which thin pieces of wood in cross sections are fastened together with a composition used under high pressure, which, it is claimed, renders the wood impervious to water, makes it non-shrinkable, and in the crossing of the grain gives the material great strength and resistance in proportion to its weight. A special feature of the boxes is a triangular section covering the edges and corners, protecting and greatly strengthening and rendering them especially desirable as containers for eggs, fruit, etc. The boxes are much lighter in proportion to the size than those made of ordinary lumber. The process of preparing the material and the composition with which the sections of wood are bound are patented.

Douglas Fir Distillation

The results of four experiments carried out on a commercial scale to determine the value of distillates from Douglas fir stumps, along with other supplementary investigations, show that distillation as an aid for clearing land is entirely out of the question, according to G. M. Hunt, of the U. S. Forest Service. The processes employed were steam distillation with and without subsequent extraction, destructive distillation, and combined steam and destructive distillation. The experiments are described in detail in a 3,000 word article, and the summary brings out a comparison of the yields of Douglas fir to those of Norway pine and Longleaf pine, although not an exact comparison.

	Turpentine gal.	Other Oils gal.	Tar gal.	Rosin lbs.
Douglas fir	1- 4	3- 8	15	75-150
Norway pine	8-18		10-20	300
Longleaf pine	10-20	7-16	25-45	

The yield of charcoal is about the same for each. While the yields of acid and alcohol cannot be compared, those from Douglas fir are so low that it is doubtful if they could be profitably saved.

Besides the small amount of product, other things stand in the way of profit. The products are different from those of Norway and Longleaf, and are not favored on the market. The large stumps make expensive handling, and, besides, the mill-waste is more easily handled and is much more than sufficient to supply the Pacific Coast.

Robert Dollar Nearing End of Long Trip

Mr. C. C. Yount, vice-president of the Empire Lumber Company, Cowichan Lake, B.C., visited New York recently to enquire into the progress of the steamer Robert Dollar, which is on its way from Victoria, B.C., with a large cargo of timber for the harbor improvement works at Toronto. He found that the Robert Dollar which was delayed at Rio de Janiero, on account of the desire of the vessel owners to transfer from British to American registry, was expected in New York, on Friday, October 23rd. Mr. Yount reported that business was very quiet in British Columbia, chiefly because it was impossible to get transportation. Almost every vessel in the Pacific Coast trade was under the British flag and very few of them were now upon the Coast. Stocks of lumber in the west, he stated, were short. All the lumbermen had stopped cutting when they found a shortage of vessels.

In spite of the dullness of the lumber market the export of lumber from St. John, N.B., to the United States for September was considerably more than double that of the corresponding month last year. The figures are as follows:—

Lumber	$101,965.86
Wood pulp	22,653.47
Pulpwood	4,567.50
Laths	45,037.67
Shingles	2,672.19
Pine boards	3,173.17
Total	$180,069.86
Total for corresponding month, 1913	79,835.47

Cableway Logging—Operating Methods

How Logs are Brought from the Woods by the Overhead System—Description of the Principal Working Features

By Asa F. Williams, F.E., Vancouver, B.C.

The logging industry of the Northwest has seen several changes in the principal methods of operation—hand logging, the "bull team," the horse team, the spool donkey and the compound. The past year or so has shown to the industry another change—the cableway or overhead system. Steam was first used in the woods of the Pacific Coast nearly thirty years ago by Saldern in California, he inventing the well-known spool donkey. Soldern's invention followed the first use of steam for logging at the great source of North American loggers, Michigan, where Hiram Butters devised a practical steam logger to take pine out of the pot-holes near Ludington. All forms of

Lidgerwood steel spar skidder as used by the Canadian Western Lumber Co.

logging machinery (the log loader, the portable pine logger, the Pacific Coast donkey) are all developments from this device of Butters. The strange point in this development of logging machinery—especially strange to the Pacific Coast operator who has but recently heard of or used the overhead skidder—is that Butters machine was an overhead machine. Thus it will be seen that the development of the simpler ground machines has come from the higher, more complex, overhead machine. From Michigan the cableway skidder wended its way south. In the south it found a tremendous field of usefulness and was perfected to its present wonderful completeness, until today ninety per cent. of the cypress, twenty-five per cent. of the gum, juniper and oak, and a considerable per cent. of long leaf pine, is logged with the cableway skidder.

On the Pacific Coast the cableway skidder made its first appearance successfully some ten years ago, but until recently made little progress, and few loggers had seen or even considered seriously the use of overhead methods for the heavy Pacific Coast logs. In British Columbia the writer some three years ago installed the first successful cableway skidder. This installation was at the camp of the Fraser River Lumber Company. It produced remarkable results from the start, decreasing railroad construction, giving clean, unsniped logs, allowing the profitable handling of small logs and decreasing yarding costs. The first installation was followed successively by five others by the same company. Other companies and individuals rapidly followed the Fraser River Company, and adopted overhead systems of skidding or of roading, and for once the Canadian has shown himself more enterprising than his American cousin, for today nearly twenty per cent. of the British Columbia coast logs are handled by overhead systems, in comparison with less than one per cent. so handled in coast timber in the United States.

Overhead System Described

For the Coast logger who still is unfamiliar with the principles of overhead logging the following may be of interest:

In all systems of overhead logging, either for yarding or roading, the logs are suspended in transit from a trackway consisting of single suspended wire cable. This cable may be simply suspended from each end, as is usually the case in yarding, or may have intermediate supports, as is necessary in roading. The supports for the main cable may be trees, poles, "A" frames, or as is the case in the most improved form of yarder, by a steel tower. From the main cable or trackway the load of a log or logs is hung from a carriage or several carriages. In skidding usually a single carriage is used, but in roading two or more, depending on the log lengths.

In overhead logging the load is held suspended from the carriage in several ways. First, by direct fastening to the carriage; this is the way for all successful roading systems, it has been attempted for yarding, but with little success. The second was used in the original machine as built by Butters, and in all present successful yarding machines excepting the Lidgerwood, is to hold the load suspended by a backpull, on the haulback or return line by means of a brake. Thirdly, the interlocking or Lidgerwood, in which suspension is accomplished by interlocking the gears of the inhaul and outhaul drums of the machine, so that the haulback pays out automatically as rapidly as the load travels. This eliminates the brake friction, amounting to fifty per cent. of the power required to handle the load.

The principal reasons for the use of overhead logging systems come from the decreased power required for transportation. The light friction of shieves and well-oiled bearings replace the tremendous load experienced in dragging logs over rocks, roots and stumps in ground yarding, of even the smoother skid road for roading. A practical example of the different power required in ground and overhead yarding is shown by a fuel test between a compound geared yarder and an interlocking skidder, both operating on Vancouver Island under the same conditions of smooth ground, handling fir averaging seven hundred feet to the log; in this test the skidder used about thirty per cent. of the fuel that the donkey did per thousand feet of logs per distance yarded.

Why Overhead Logging Is Best

There are many other reasons which render the overhead method of roading or of yarding more desirable than ground methods; many of them are advantageous only in specific cases. Some of them are cited here that the logger may judge whether they apply to his own conditions. When logs are yarded upon the ground there must be some preparation, such as sniping, bucking into short lengths, swamp-

North Bend system of overhead trolley installed by Canadian Willamette Co., Vancouver.

ing, putting in shear logs, or in roading, fore and aft or cross skids, road or tree rollers, or other preparation, all of which is unnecessary in overhead operations. A high speed of operations both for the haul-back and for the load is possible in overhead methods—a speed two or three times as great as with ground systems.

Logs handled through the air are free from sand, gravel and rocks; they are without broken ends; and piles and similar products retain their bark undamaged. Forest products of all descriptions may be handled with little difficulty or much additional cost, be they logs twelve or one hundred and twenty feet long, pulpwood, shingle bolts or tanbark.

Overhead systems are but little influenced by ground conditions. The varied conditions of the long leaf pine belt, the cypress swamp, the West Virginia mountains, the sharp coral rocks of the Bahamas, the mountains of British Columbia, or the hardwoods of lake states, with the entirely different methods of operation formerly used, are all now most economically logged by overhead methods, which permit of operating advantageously either up or down hill, much more so than do ground methods.

To consider the advantages of overhead methods for the Pacific Coast, and especially the Coast of British Columbia, the four principal ones which are causing them to replace ground methods are: First, the decreased cost of logging; secondly, their adaptability to rough ground; thirdly, the greater distance they will work advantageously; and, finally, their ability to handle all size and length of logs cheaply.

The present average cost of logging on the Coast of British Columbia is over six dollars per thousand feet, and it is tending to increase. Anyone who has seen the millions of feet of British Columbia timber that stands on rough, rocky slopes, or up impassable gorges, or miles up valleys impassable for railroads, realizes the inefficiency of the present methods to log the timber from these areas. Of the new methods that must be introduced for their exploitation, undoubtedly the overhead yarding and roading method will be prominent.

Working Features Explained

To the logger first investigating overhead systems a number of questions usually occur. Some of the possible ones are answered as follows:

Regarding the main cable: In practice the main cable in overhead yarding is stretched so as to have a deflection of from two and one-half per cent. to three per cent. It will readily be seen that the deflection of the main cable is one of the main factors determining the length of the span it is possible to use. Thus, on a 1,000 foot span the deflection would be from twenty-five to thirty feet. A further clearance is required for the carriage, tongs, or other grabs, of perhaps ten feet more, so that to handle logs up to forty feet in length on a span of one thousand feet the terminal supports of the main cable on level ground logging would have to have an elevation of at least seventy-five feet.

The resultant strain in yarding on the main cable with the usual deflection is about five times the load; thus a log scaling five thousand feet, and weighing eighty-five hundred pounds to the thousand feet,

Where the McFarlane does great work.

will give a load of 42,500 pounds, or a terminal pull on the main cable of 210,000 pounds. Furthermore, it must be understood that the load usually greatly exceeds the weight, for in actual skidding stumps, brush, rocks and small trees offer resistance, if encountered, that must be overcome.

In breaking out logs in yarding it will be found that the engine operator usually pulls until the load comes, something breaks, or the engine is stalled. The real factor governing the required strength of all rigging, then, is the pulling power of the engine.

In roading by overhead methods the excessive strains of yarding are not encountered, and the weight or the maximum load of logs is the governing factor in the strength of equipment. Long spans are not so desirable as in yarding and a main cable deflection of about five per cent. is generally used. It is of course understood that the strain increases as the deflection decreases. It is now practicable under suitable conditions to yard up to 3,000 feet, and to road up to five miles, by overhead methods; efficiency, however, decreases as the distance increases. As to the future of overhead methods on the coast of British Columbia, it is my humble opinion that less than ten years will see at least 80 per cent. of the logs yarded by overhead methods.

There are accompanying this article four illustrations. The reader's attention is called to that of the Portable Spar Skidder especially, in that it is the most highly developed and specialized of any logging machine in existence. This machine is an overhead skidder and loader; the main cable is suspended from the steel spar. The machine remains on the track during all operations, the empty logs cars passing beneath it. Loading is done with a long swinging loading boom. This machine is the first of its kind in the Northwest and embodies most of the principles that will be found in the machines used in the future.

[*Note.—Mr. Asa S. Williams, now a contracting engineer of Vancouver (familiarly known as "Skidder") was formerly manager of the logging machinery department of the Canadian Allis-Chalmers Company, and had long previous experience in the South and East installing overhead logging systems.—Editor].

Forest giant in grip of McFarlane skyline.

Donald McLean, for several years in charge of the London branch of the E. B. Eddy Company, of Hull, Que., has been appointed manager of the Toronto branch, succeeding James Logie, who has been manager for the past five years, but who resigned to enter into the paper jobbing business in Toronto on his own account. Mr. Logie is well known to the trade, having been for nearly a quarter of a century identified with it. Allan M. McLean has been made manager of the London branch of the Eddy Company, succeeding his father.

British Trade Statistics Show Reductions

The London Board of Trade, in its report for September shows that extensive reductions occured in British trade during that month.

Imports for last month were but £45,051,937, as against £61,355,725 for the corresponding month of 1913. Exports were £26,674,101, as against £42,424,864 in September of the preceding year.

These figures show a decrease of £16,303,788 in imports and of £15,750,763 in exports.

An analysis of the figures shows a decrease of £1,610,711 in the amount of raw cotton imported and a decrease of £3,664,502 in manufactured cotton exported.

The only items of import showing a marked increase for the month were flour and grain, the amounts of which exceeded those for the previous year by £682,041.

After manufactured cotton, coal showed the greatest falling off in the export list. The amount of coal, coke and manufactured fuel exported last month was worth £1,851,658 less than that sent out in September of 1913.

Britain feels it must find new coal markets, as Germany was one of its best customers. Last year Germany bought £5,328,000 worth of coal from British mines. It is doubtful whether this market will ever be regained, and British manufacturers are urged to take over German trade that they may require more fuel in their factories.

Spruce Deal Demand Growing

Eastern manufacturers of spruce have been considerably exercised of late by the activity of English and Continental buyers, not only in their natural field—the maritime provinces of Canada—but also in Northern Maine, where there are many large mills well equipped to produce and ship the special sizes of 3-inch stock known abroad as "deal." English "wood goods" statisticians tell us that about 65 per cent. of the spruce deal consumed annually in Great Britain come across the Baltic, and the buyers apparently fear that this waterway will be closed to them indefinitely by reason of the war. A report from Nova Scotia tells of the chartering of vessels to carry fully 65,000,000 feet of Nova Scotia spruce across the water, while one exporting house is credited with having closed for the delivery of more than 50,000,000, some of which will come from this season's cut and some early next spring. This stock will be shipped from St. John and from mills along the St. Lawrence. That the foreign buyers, contrary to custom, have invaded the Maine field is shown by reports that one mill on the northern border has booked an order for 3,000,000, while another has sold 2,000,000 feet, while still another large order was being negotiated with a Bangor shipper. Shipments from Maine mills will be made either from Bangor or from Stockton Springs, the open harbor at the end of the Bangor & Aroostook Railroad. That this call upon the spruce shippers of Maine and the Provinces will have a steadying effect upon the winter and spring spruce market of the East is the natura lsequence. To what extent this demand from abroad is to increase is a problem which the future alone can decide.—The Lumberman's Review.

Car Supply Likely to be Ample

In the middle of the summer this year predictions were generai that there would be a serious car shortage in the fall. In the latest report at hand, furnished by the American Railway Association, covering the year to September 15, while it is shown that there has been a steady decrease since July 15 in the net surplus of cars in the United States and Canada, there was on that date a surplus of 136,049 cars, which when compared with the surplus (40,159) at the corresponding date in 1913, shows practically 100,000 more cars idle on September 15 this year than was the case a year ago. The present situation is doubtless traceable to the fact that thousands of cars engaged in hauling export commodities to the water front have been turned completely away from that line of activity. Apparently the supply of cars will be ample throughout the fall and winter periods.

Southern Hardwood Cut Greatly Curtailed

A recent despatch from Memphis, Tenn., says that the most significant development in the hardwood situation in the South since the war began in Europe has been the vast curtailment of output effected. Practically all the mills in the Mississippi Valley, comprising the principal hardwood producing territory, were operating on full time at the end of July. Since that time manufacturing operations have been confined practically entirely to the conversion into lumber of the stocks of logs already on hand. Such progress has been made in curtailment that conservative hardwood lumbermen estimate that the output in the Memphis district is not more than 25 to 30 per cent. of normal. By means of curtailing the output and by virtue of ability on the part of the lumbermen to secure funds for the financing of their lumber, very little stock has been forced for sale. Demand has not been active at any time since the war began, but the ability of lumber interests to carry their stocks without sacrificing them has made it possible to maintain prices at almost as high a level as that prevailing before the war.

Exports of lumber are almost at a standstill, particularly so far as new business is concerned. Within the past three or four weeks cargoes destined for the United Kingdom have been allowed to go forward, but shipments have not been made to any of the other warring countries because of the extreme risk involved therein. The British Government has been a moderate buyer of southern hardwoods more recently, but demand from other countries is particularly small.

Large Timber Resources in G. T. P. Districts

Mr. J. E. Dalyrmple, vice-president of the Grand Trunk and head of the traffic department, who went with Mr. Chamberlin to the end of steel upon the recent western trip of the former, is enthusiastic in respect of all he saw and heard touching the new system. "The general character of the country, its capacity for development along the most permanent lines, and the variety of its undoubted rich resources, have impressed me most favourably, he said. Take the case of timber resources. I had the impression that these were of secondary importance. On the contrary, from what I have seen, from the enquiries I have made, the timber asset may easily prove to be the chief among the natural resources of the country. So much am I impressed with this that I intend to take the matter up with the Government to the end that its co-operation may be enlisted in the work of developing this large asset. These timber limits lie so near our line that there will be little difficulty in getting the timber to market. With our easy gradients we should be able to supply the prairie provinces, and, of course, there are the markets overseas to be supplied via Prince Rupert."

Canadian Box Shooks May Find Sale in London

Mr. Harrison Watson, the Canadian Trade Commissioner at London, Eng., has forwarded to the Department of Trade and Commerce specifications of box shooks, furnished by a leading lumber broker in London. This broker stated that, although considerable advances have taken place in the prices of Scandinavian box shooks, recent Canadian quotations had not up to the time of writing been exceeded. He was anxious, however, to receive quotations from the Canadian mills, as it was uncertain as to whether Scandinavian box shooks would for long be available at the present rates. It would be deisrable for Canadian shippers to quote their lowest c.i.f. prices to the ports of delivery, inclusive of marine insurance, but exclusive of war risk insurance. For commission and delcredere, 5 per cent. of the f.o.b. value of the goods should be included in the prices quoted.

Railway Service in Northern Ontario

In his first address to the public, Hon. W. H. Hearst, the new premier of Ontario, who retains the portfolio of Lands, Forests and Mines, declared that with the inauguration of the Transcontinental Railway service across Northern Ontario, the development of that district in relation to settlement and forest production, would progress rapidly. Premier Hearst remarked that until transportation channels were supplied for Northern Ontario it would be unfair to expect rapid settlement or growth.

Clothes Pin Information Wanted

Editor Canada Lumberman:— Bear River, N.S., October 9.

We have been investigating the manufacture of hardwoods for some months and it occurs to us that there is an opportunity to start a small enterprise along this line, in our neighborhood. We would be glad to have you send us some information as to the number of clothes pin factories, with some allied manufactures, which are operating in Canada, where they are located, what success they have had and what the prospect for this line of business is. Please also give us whatever information you can in regard to the manufacturers in Canada who supply clothes pin machinery—Clarke Bros.

The Forestry Branch of the Department of the Interior at Ottawa state that five firms in Canada report the manufacture of clothes pins. These firms have reported the product as separate from ordinary woodenware. Some of the larger woodenware factories may make clothes pins as a by-product from hardwood waste, but if so, they have not mentioned them on their lists of products. The Department gives a list of the five firms referred to, which have been forwarded to Messrs. Clarke Bros. They state that they can give no information as to the prospects of success in connection with such a line of business. This would entirely depend upon particular local conditions. Several addresses of manufacturers of woodworking machinery have also been sent to Messrs. Clarke Bros., in connection with this enquiry. If any readers of the Canada Lumberman can give more definite information upon this subject, we will be very pleased to hear from them, and to forward the information.

Causes of Fire in Yards and Kilns

A report issued by the National Fire Protection Association, Boston, Mass., states that 43 per cent. of fires in lumber yards occur from unknown causes. The cases in which the causes are known are divided as follows:—

Exposure.	Per Cent.	
Locomotive sparks	27.0	
Other exposure	16.2	
		43.2
Incendiarism		38.0
Smoking		8.0
Lightning		5.4
Stoves in offices		2.7
Oily rags and waste		2.7
		100.0

The report also states that 28.6 per cent. in number caused losses of $10,000 or below and that 71.4 per cent. of the fires caused losses above that amount. It recommends that piles should be limited to 15 feet in height; should individually be kept of narrow width and should be separated every 10 or 20 feet by an alley 3 or 4 feet wide to permit the laying of hose lines. Main driveways should be 15 or 20 feet wide and transverse driveways of similar width should be maintained not over 100 feet apart. Large yards should be divided into fire sections by the maintenance of clear spaces 100 to 200 feet wide.

As to dry kilns the report states that much improvement has been made by the general adoption of the moist air principle in drying, greatly reducing losses. Of the statistics gathered by the committee 56 per cent. of fires resulted from unknown causes. The known causes were as follows:

	Per Cent.
Steam pipes in contact with combustibles	30.3
Sparks entering kiln	28.8
Overheating	12.2
Oily material igniting	10.6
Fans or blowers	4.6
Defective flue from kiln	3.0
Miscellaneous (none over 2 per cent.)	10.5
	100.0

The report concedes that the drying of lumber by kilns rather than by air drying has to a very material extent, under modern conditions, reduced the fire hazard of lumber manufacturing plants. It is, of course, obvious that there is a smaller area exposed to causes of fire in a dry kiln than in a corresponding equivalent of lumber yard space; but in addition the committee emphasizes as points tending to reduce fire hazard the superior design and construction of modern kilns as to the support of steam pipes and lumber trucks; the promotion of cleanliness by large clearance and easy access for removing refuse accumulation; the continuous circulation of very moist air with entire absence of charring of the interior woodwork of the kiln, and, as an incidental cause, the reduction of drying defects such as warping, checking and discoloration, thus reducing the amount of waste in the manufacture of lumber and promoting cleanliness in woodworking plants in which kiln dried lumber instead of air dried lumber is used. Sprinkler protection is recommended and it is stated that no large losses have occurred in dry kilns where a standard sprinkler system was provided, with adequate water supply. The report contains suggestions for installation of fire protective equipment.

Weights of Various Kinds of Lumber

The figures below are taken from data given in the United States Forest Service Circular 213 for the first column; from the official estimated weights of air-dry lumber as published by the Hardwood Manufacturers' Association of the United States for column 2; from similar official estimated weights both dry and green as published by the National Hardwood Manufacturers' Association for columns 3 and 4 except the figure for white pine in column 4 which was taken from Forest Service Circular 213.

	Weight per M. feet			
	Absolutely dry	Air dry	Air dry	Green
Beech	3,476 lbs.	4,000	4,000	5,750
Birch	3,435	4,000	4,000	5,500
Hard Maple	3,341	4,000	3,300	5,400
Soft Maple	3,222	3,000	3,300	5,000
White Pine	2,032	2,400	2,500	3,535

Box makers in the United States use 4,547,973,180 feet of lumber annually, of which softwoods constitute 3,138,278,019 ft., or 69 per cent., and hardwoods 1,409,695,161 ft., or 31 per cent. of the total. Practically all of the wood used for boxes is the product of the sawmill and therefore forms a part of the annual lumber cut. Based on the production in 1912, the last year for which figures are available, 11.6 per cent. of all lumber produced in the United States is converted into boxes. In fact, the manufacture of packing boxes and shooks, crates, crating, fruit and vegetable packages and baskets, is the second largest wood-consuming industry of the United States. The manufacture of lumber for construction and building purposes, planing mill products, sash, doors, blinds and general mill work, is, of course, the leading wood-consuming industry, taking over two-thirds of the annual lumber cut.

Expects Trade Improvement in the West

D. N. Winton, of Minneapolis, who returned recently from a trip to northern Saskatchewan where he is interested in the manufacture of lumber, says that trade in the Canadian northwest is rather slow at the present time. Crops have been fair this year in the western prairies and the farmers are getting more for their grain than ever before, but the war has hit Canada rather hard and business is dull. The mills in which Mr. Winton is interested are those of the Prince Albert Lumber Company, Limited, of Prince Albert, and the Ladder Lake Lumber Company, of Big River. The latter concern was formerly the property of the Big River Lumber Company and was recently bought by the Wintons. The mill of the former owners had been destroyed by fire but the new owners are just completing a magnificent new plant which will have a daily capacity of about 300,000 feet in a day and night run. The new equipment for this plant was manufactured and installed by the Diamond Iron Works of Minneapolis. The Prince Albert mill of the company has a daily capacity of 350,000 feet. Practically all of the lumber manufactured by these two concerns is spruce of very good quality. While it contains practically no finishing lumber, neither is there any very low grade stock in it. The company has enjoyed excellent trade for several years and Mr. Winton believes that business will again be fine in that section as the agricultural resources have not yet been developed to near their potential capacity.

Manchester and Liverpool Stocks

H. W. Litghtburne & Company, Liverpool, and John E. Moore & Company, Limited, St. John, N.B., furnish the following report upon Liverpool and Manchester stocks on October 1st:

Spruce and Birch

Month Ending September 30th, 1914

Liverpool

	Import			Consumption			Stock		
	1912.	1913.	1914.	1912.	1913.	1914.	1912.	1913.	1914.
N.B. & N.S. Spruce & Pine, Stds.	2,640	2,180	5,380	4,060	4,140	2,850	8,320	7,840	9,180
Birch Logs, Loads	40	0	0	180	60	180	1,140	520	320
Birch Planks, Stds.	164	164	145	79	188	61	867	715	418

Manchester

Spruce, Stds.	5,040	6,530	4,900	6,750	3,080	5,810	15,870	25,270	13,190
Birch Logs, Loads	80	0	240	180	20	200	500	320	920
Birch Planks, Stds.	127	18	176	79	30	79	794	551	618

Stocks in Manchester and Liverpool Combined

Spruce

	1910.	1911.	1912.	1913.	1914.	
Manchester	22,080	18,770	15,870	25,270	13,190	
Liverpool	9,440	7,250	8,320	7,840	9,180	
	31,520	26,020	24,190	33,110	22,370	Stds.

Birch Logs

Manchester	100	260	500	320	920	
Liverpool	220	900	1,140	520	320	
	320	1,160	1,640	840	1,240	Loads

Birch Planks

Manchester	752	121	794	551	618	
Liverpool	346	546	867	715	418	
	1,098	667	1,661	1,266	1,036	Stds.

Laurentide Finishes Big Survey

The forestry division of the Laurentide Company, Limited, has finished a survey and map of 2,350 square miles showing all drainage, roads, portages and trails, lookout stations, telephone lines, and timber conditions. This is the first complete map ever made of the section and in order to be of use about 500 miles of contiguous territory was mapped.

There were recently shipped in one consignment from Vancouver to Buenos Aires, Argentina, 500 tons of wood pulp, and further orders from the same sources for similar shipments have been received by a Vancouver pulp Company.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Export Birch

Hardwood lumber wanted for export.

The Fletcher Pulp & Lumber Co., Ltd.,
20-21 Sherbrooke, Que.

Lumber Wanted

Hemlock running chiefly 14 ft. and 16 ft. lengths, 1-in. Spruce, Basswood, Birch; also Cedar Posts. Send detailed list giving lowest wholesale prices. Address Box 85, Canada Lumberman, Toronto. 21-24

CRATING

We invite correspondence from manufacturers of crating stock in Canada and the United States for the New England and New York markets. Let us know prices of ½-in., ⅝-in. and ¾-in. stock in first letter; cash business, and plenty of it. Box 91, Canada Lumberman, Toronto. 21

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

Wanted

2 cars Cedar Posts peeled, 3 to 5 in. tops.
1 car 1-in. Pine, 1 to 10 in.
1 car No. 2 Hemlock, 1 and 2 in.
1 car No. 1 Hemlock, 2 x 8 and 10, 10 to 16 ft.
Best cash prices.

Box 195, Jordan, Ont. 21

For Sale–Lumber

For Sale

400 Spruce Spiles, 60 ft. long, 7 in. tops. Also any quantity Spiles 35 to 50 ft. long. Prompt shipment.

The Northern Lumber Mills, Limited,
21-t.f. North Cobalt, Ont.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale

Two cars of Poplar, Balm of Gilead and other softwoods. Three miles west of Galt, C. P. R. or G. T. R. Railroads. Write Uriah Snyder, New Dundee P. O., Ont. 21-22

For Sale

St. Frances Valley, Arkansas, Band Sawed Red Gum, dry, choice stock, all grades. Inspection guaranteed under National Rules.

The Crittenden Lumber Company,
19-22 Crittenden, Arkansas, U.S.A.

For Sale

One car 4/4 in., 2 to 4 in. Clear Quartered White Oak Strips.
One car 4/4 in., 4 to 5½ in. Clear Quartered White Oak Strips.
Will make attractive prices to move this.

Duhlmeier Bros., Cincinnati, O., U.S.A.
21-22

For Sale

400 pieces of 6 x 6, 16 to 24 ft. Spruce.
600 pieces of 7 x 7, 16 to 24 ft. Spruce.
250 pieces of 6 x 8, 10 to 18 ft. Spruce.
800 pieces of 8 x 8, 16 to 24 ft. Spruce.
250 pieces 9 x 9, 16 to 24 ft. Spruce.
350 pieces of 10 x 10, 16 to 24 ft. Spruce.

BELLAVANCE & COMPANY,
21 Rimouski, Que.

Dimension Timbers

50 pieces Red Pine, 6 x 10 x 18, $30.00.
20 pieces Red Pine, 8 x 10 x 18, $30.00.
10 pieces Red Pine, 8 x 12 x 20, $32.00.
15 pieces Red Pine, 10 x 12 x 16, $32.00.
30 pieces Cedar, 8 x 8 x 12, $19.00.
30 pieces Cedar, 9 x 9 x 12, $19.00.
20 pieces Cedar, 10 x 10 x 12, $20.00.
Send for full list. Spruce and Yellow Pine also.

South Shore Lumber Company, Limited,
21-24 St. Lambert, P.Q.

White Pine

Have on Georgian Bay, in dry, Good White Pine (as graded in mill):—
20,000 ft. 1 x 4 and up, 10/16 ft., say 20 per cent. 8-in. and up.
54,000 ft. 1¼ x 6 and up, 10/16 ft., say 50 per cent. 8-in. and up.
20,000 ft. 1½ x 4 and up, 10/16 ft., say 65 per cent. 8-in. and up.
For prompt shipment, will name prices about 1/3 off.

Apply, The Rideau Lumber Company, Ltd., Ottawa, Ont. 21-22

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale–Machinery

Engine For Sale

15 in. x 34 in. Single Cylinder Wheelock 115 H.P., in very best condition. Write The Steel Company of Canada, Limited, Montreal, Que. 21

Boilers For Sale

Two horizontal return tubular boilers, 66 in. diam. by 15 ft. long, with fifty-eight 4-in. tubes. 100 lbs. pressure. Write The Steel Company of Canada, Limited, Montreal, Que. 21

For Sale

28 36-ft. 60,000 lbs. flat cars.
1 55 ton Locomotive.
1 40 ton Dinkey.
15 25 ton Dinkies.
In first class order, for immediate delivery.

W. FRASER,
21-24 83 Craig St. West, Montreal, Que.

WOODWORKING MACHINERY FOR SALE:—1 42-in. power feed band rip saw; 4 30-in. Ideal pedestal band saws; 1 8-in. three side moulder; 2 upright power mortisers; 2 24-in. planers and matchers; 1 MacGregor Gourlay power feed railway cut-off saw; 2 Ideal variety saw tables; 1 8-nail box nailing machine; 1 Cowan spindle carving machine; 1 Cowan double head panel raiser; 1 No. 6 Fox universal wood trimmer. H. W. PETRIE, LIMITED, Toronto. 21

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

For Sale

Saw mill, 8 ft. Allis Band, 6 ft. Allis Resaw, Clark Carriage, Prescott Set. 12 in. Steam Feed, Edger, Boilers, Engines, Dynamo. Complete mill ready to run.
14 Russell Log Cars, 60,000 capacity, 26-in. wheels, air brakes, 12-ft. bolsters.
Eight miles of 45-lb. Steel Relaying Rails, excellent condition. Wheel Press, Lathe, Planer, Crucible for Brass, Power Drill.
All of the above equipment is at Marlinton, W.Va.

Campbell Lumber Company,
20-23 Marlinton, W. Va., U.S.A.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

Position wanted as inspector of lumber. Twenty-five years' experience. Best of references. Any kind of lumber. Have some capital. Will not work for small firm. Address J. Golden, Rutter, Ont. 20-22

Position wanted as Superintendent of woods or mill, or both. Understand the lumber business from stump to the building. Twenty years' experience. A1 references. Box 79, Canada Lumberman, Toronto. 20-21

Position wanted as manager of retail woodworking business. Thoroughly experienced in lumber factory and office routine. Expert organizer and capable of producing maximum results. Twenty years with one large Ontario company. At present engaged. Box 88, Canada Lumberman, Toronto. 21-23

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED a competent man to look after bush operations. Apply, F. W. Brennen & Company, Hamilton, Ont. 18 21

Business Chances

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Sawmill For Sale

Capacity, 20,000 ft. per day; circular saw outfit. Engine, 46 h.p. Boiler, 80 h.p. Pony Pump. 3 Saw Edger. 3 Block Carriage and Dogs. Trimmers and Slash Table. Friction Nigger. 4 Circular Saws, 52-in. Shaft and Belting. Frictional Jack Ladder.
Sawmill all complete F.O.B. Cars Penetang for $2,850.00. Also chopping outfit, capacity 40 to 120 bags per hour, price $350.00, F.O.B. Cars Penetang.

F. PAYETTE & COMPANY,
21 Penetanguishene, Ont.

Miscellaneous

Electric Lighting Plant

wanted, without power, direct current, capable of supplying 250 to 300 16 c.p. lamps. Must be in first class condition. Name lowest cash price. Correspond with Clarke Bros., Bear River, N.S. 21-24

Sales Agents Wanted

Large United States chain manufacturers now represented in Quebec Province want to secure sales agents in Ontario, Western Canada and Maritime Provinces for all kinds of logging chain, dredging chain, etc. Apply Box 80, Canada Lumberman, Toronto. 20-22

Sales Engineers Wanted

A large firm specializing in the manufacture of motors of all classes desires to secure sales engineers in various parts of Canada. Firms who can carry a stock of motors are preferred. Write stating the territory that you can cover. Box 96, Canada Lumberman, Toronto. 21-24

Wanted

Second-hand patent snow plows, also boom chains. Plows are for use on road where sleighs 6 ft. wide from outside to outside are run. Address The Schroeder Mills and Timber Company, Salines, Ont. 21-22

For Sale

Fifty good lumber horses from 1400 to 1700 pounds. Also harness, sleighs, water tanks, snow plows, blankets, chains, camp stoves and all camp supplies. Can all be seen at Berriedale, near Burks Falls, Ont.

Highland Lumber Company, Ltd.,
20-23 Berriedale, Ont.

Agents Wanted

Large firm making low voltage transformers and electrical measuring instruments wants sales agents for Canada. These transformers are for sign lighting, bell ringing and toy requirements. The electrical measuring instruments include a complete line of switchboard and portable ammeters and voltmeters. All agents to work on a commission basis. Write, stating what territory you can handle, to Box 93, Canada Lumberman, Toronto. 21-23

Portable Mill and Complete Camp Outfit For Sale

50 H. P. engine and locomotive boiler mounted on skids, only used three months.
54-in. circular saw mill, three saw edger, cut-off saw, shingle mill, belts, shafting, pulleys, etc. Also camp outfit, blankets, sleighs, waggons, chains, etc. Will sell right. Terms arranged or will take lumber in part payment.

C. H. ROGERS,
Care Peterborough Canoe Company,
18-21 Peterborough, Ont.

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

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Work in Saskatchewan

E. H. Roberts, Forest Assistant, Dominion Forestry Branch, Prince Albert, Saskatchewan, writes:—

"The Dominion Forestry Branch have three reconnaissance parties in the field here examining lands and locating suitable areas for inclusion in forest reserves. Another party is examining boundaries on the already established reserves, with a view of making additions where the land is unsuitable for agriculture, so as to straighten the existing lines and facilitate the fire-guarding, as well as making the blocks more compact and easier handled. On the smaller prairie reserves, which are mostly without any tree growth at present, grazing permits have been granted for the running of stock, and many of the settlers surrounding these areas are gladly taking advantage of the privilege. On the older established reserves, the improvement work is going ahead rapidly. The erection of ranger houses, steel look-out towers, and the construction of telephone lines is under way. Fireguarding the boundaries and the plowing of the same is keeping some of the rangers busy. The railroad fire patrol has been doing good work thus far, and most of the roads travelling the bush country have their right-of-way well cleaned up, things being in better condition than at any previous season. The fire ranger service in the north country is doing well. Another new patrol boat was installed this spring on the lower Beaver River and in the vicinity of Isle a la Crosse. The forest nursery on the Pines Reserve is in fine shape, and the beds that were planted last year are making a remarkable growth this season.

"The newly located gold-fields at Beaver Lake, north of Cumberland House, are attracting considerable attention, and the influx of prospectors is keeping the fire rangers in that district very busy."

Notes From Kamloops

P. Z. Caverhill, District Forester of the British Columbia Forest Service at Kamloops, writes:

"This district embraces that portion of British Columbia extending north from the Dominion Railway Belt to the head waters of the Clearwater, North Thompson, Adams and the Columbia Rivers.

"In taking charge, I found that the district was wholly lacking in transportation facilities. In fact, even the rudiments of trails usually made by Indian hunters were missing, no doubt owing to the semi-coast type of the timber and the difficulty of getting through owing to the amount of down timber. Improvements were therefore our first consideration. One hundred and twenty-two miles of the most needed trails were constructed, and sixty miles of telephone, this being only a start.

"A start was also made in the disposal of brush after logging operations. The debris, after a couple of operations, was burned broadcast last spring. On tie permits the brush was piled, but has not yet been burned. An interesting sequence of this operation is the keen interest which the settlers are taking in brush disposal. They are now requiring almost all operators on their land to pile the brush. This is going to be a great help in the future fire situation."

Treatment of Exposition Trees

The thousands of great trees which are being brought from every country in the world to be transplanted at the Panama-Pacific International Exposition are scientifically treated by experts to prevent their dying. The side roots are first cut and sideboards placed down the cuts. Six months later, when the tree has become accustomed to receiving nourishment only from its bottom roots, these are cut and a bottom board attached to the side ones, making a great box. The tree is then hoisted by derrick and shipped by land or sea to San Francisco, where it is replanted in special soil brought from the Sacramento River, seventy miles away.

Death of a Prominent B. C. Lumberman

One of the prominent lumbermen of British Columbia passed away on October 18th in the person of Mr. John O'Brien, president of the Brooks-Scanlon-O'Brien Co., Ltd., Vancouver. Death took place after an illness extending over several months. Besides being president of the Brooks-Scanlon-O'Brien Co., he was also president of the B. C. Loggers' Association, and a member of the Vancouver Board of Trade. Deceased, who was 65 years of age, was born at Bangor, Maine, and went to Minnesota when he was but a boy. His parents located at Stillwater, Minnesota, and until 1900 Mr. O'Brien was engaged in the lumbering business there. In that year he moved to Montana and until 1906 was in the lumbering business, being president of the John O'Brien Lumber Co. In 1906 he became interested in the timber business in British Columbia and moved to Vancouver where he organized the Brooks-Scanlon-O'Brien Co., Ltd., which company is one of the largest in the timber business in the province.

B. C. Seeking Large Australian Order

Elsewhere in this issue a report is published of a cable sent to the Canadian Trade Commissioner at Melbourne, Australia, with the object of inducing the government there to permit Canadian firms to tender direct instead of through San Francisco firms, for the supply of the 25,000,000 feet of lumber needed for the Capitol buildings at Canbarra. A later despatch states that a cable has been received in reply that the matter can be arranged satisfactorily. The government of B. C. is also urging the Dominion Government to press a request upon the Australian Government for a tariff giving preference to Canadian lumber.

Pennsylvania's Wood Consumption

A report upon the wood-using industries of Pennsylvania, which has recently been published by the State Forestry Department, states that seventy-two kinds of wood were used within the State during the year under consideration. White pine heads the list, representing nearly 14½ per cent. of the total, but had longleaf, loblolly, and shortleaf been grouped under the term "southern yellow pine" it would have stood first in the list, and in amount equal to more than one-quarter of the total consumption. It is interesting to know that the consumption of lumber in Pennsylvania exceeds the production. In 1912 the lumber cut by the State was 992,180,000 feet while the quantity consumed by the wood-using factories was 1,114,000,000 feet. Of the quantity used, 313,683,000 feet or 28 per cent., was accredited to the State, leaving 800,536,000 feet as coming from the forests of other States and from foreign countries. Cost is the principal consideration with the manufacturer purchasing raw material and the fact that his own State produces the same kind of lumber that he uses is of little consideration unless that material be the cheapest and readily and conveniently procured. That only a little more than one-fourth of the State's lumber production is consumed in factories within the State suggests a probable duplication in distribution that does not tend to economy.

In the consumption of wood four classes of factories in Pennsylvania lead all other states: brushes, patterns and flasks, toys, and mine equipment; in seven others the State stood second; car construction, printing material, caskets and coffins, laundry appliances, playground equipment, machine construction, and tobacco pipes. The State was third in box making and the manufacture of wooden clock cases. Excelsior factories, manufacturers of insulator pins and brackets, and the makers of butcher blocks and skewers were the only industries procuring all of their wood from the forests of the State. Nineteen others use a larger amount of State-grown than shipped-in material, leaving 29 that find the major portion of their wood supply out of the State. Every industry reported the purchase of some Pennsylvania wood. It is surprising that the box makers, who use only low grades, used more shipped-in material than any other industry, while on the other hand, the handle makers, who usually seek their raw material over a wide extent of territory, procured considerably over two-thirds of their needs within the State.

Nearly $32,500,000 are annually expended by the Pennsylvania wood users for raw material. Not over 20 per cent. of this is paid for home-grown woods, leaving $25,000,000 spent outside the state.

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H. D. SWARTS
Inventor and Mfr., Scranton, Pa.

Review of Current Trade Conditions

Ontario

The lumber trade in Ontario has shown no change during the past fortnight. The demand in the large centres is very quiet, building operations being very light and the manufacturing demand greatly reduced. There are a few reports however, of an improvement from the manufacturing trade. A prominent firm of box makers reported that the second week in October was one of the best it had ever had. In the country districts the demand is better than elsewhere, as the farmers have done well with their year's crops and a little of their money is finding its way to the retail lumber yards. The movement however, even in the country districts, is only sufficient to maintain a hand to mouth demand. It is scarcely possible to give any definite review of prices, as the market is so quiet. Stocks at mill points, though not large, are ample for the rest of the year, if market conditions do not become more active. Logging operations are likely to be much reduced during the winter, though several important mills will operate on the same scale as usual. The export trade to the United States continues very quiet.

Low water in the Ottawa River has now compelled several firms to close their mills. This will have a noticeable effect upon the season's cut, as the mills usually continue sawing until the end of November, or the early part of December. Woods operations this winter promise to be much less than last winter. There is very little export trade from Ottawa to Great Britain at present, as most of the ships have been taken off for use as troop transports.

Eastern Canada

The volume of trade at Montreal continues small, although, considering the situation in general there is a fair volume of orders. Building operations are very quiet as the banks have closed down on the contractors. It is expected that, in the course of a short time, better prices will prevail, as there is likely to be a comparative shortage of stocks. The export trade to Great Britain has been light, on account of scarcity of vessels, many having been taken off for conveying Canadian troops to England. Eastern firms which can furnish mining timber are interested greatly in the enquiries for pit props for England. It is expected that a good trade will result in these. The requirements will total about 1,000,000. A few individual firms already report having received orders. The government is seeking to make arrangements for covering the whole trade. Prices alone will be the determining feature.

Boston reports indicate that spruce may be expected to advance in price. A large quantity has been taken off the market by the sale of stocks for England. The local demand is also improving. The base price for frames, 8 in. and up remains at $23 with some business at 50c less. A few of the larger mills are reported to have received bids at higher prices than those which have been prevailing of late. The demand for random is spotty. Spruce boards are moving very slowly and offerings are plentiful. At New York, the demand for eastern spruce continues dull. Yards are well supplied. The demand for hemlock at Boston is quiet, but a fair trade continues. Clipped boards, 10, 12, 14 and 16 ft. are selling at $21, to $21.50 and some mill men are holding their stocks rather than go below $22.

The movement of shingles at Boston is light and prices are a little easier. White cedar extras are quoted at $3.50, clears $2.90 and 2nd clears $2.75, while it has been possible in some cases to buy for 10c less. Red cedar shingles although in less demand than the whites, are a little firmer in price. The best Washington makes are bringing $3.65 and British Columbia makes $3.75. Lath continue in fairly good demand, the best varieties of 1⅝ in. selling at $4.10 for immediate delivery and $4, where early delivery is not urgent. The demand for 1½ in. is moderate, the price being from $3.75 to $3.80.

Great Britain

Quite an extensive trade is reported from London, England, much of which is no doubt connected with Government requirements, especially for housing the great number of new troops which are daily being enrolled, also for increasing the number of temporary hospitals and for the accommodation of the large number of prisoners constantly arriving. In addition to this there is a demand for lumber for the vast number of boxes required for packing ammunition and stores, and a demand for large quantities of whole logs, deals and battens needed by the forces in the field. Deliveries at London docks for the week ending October 3rd amounted to 6,583 standards, as compared with 5,013 standards during the corresponding week of 1913. At Foy, Morgan & Company's recent auction sale, 3 x 9 2nd Quebec spruce 10 to 11 ft. was sold at £14 10s. 3 x 7 u/s 12 to 13 ft. at £11 15s., and 3 x 6, 3rd Quebec at £11 15s. and £11 10s.

At Liverpool, the feeling of depression in the lumber trade which developed shortly after the outbreak of the war is passing away. A good business is going on in the spruce market. The stoppage of imports from the Baltic has affected the value of spruce which is being used as a substitute. Prices for future contracts from St. John, N.B., and Miramichi are very firm, owing to the rise in freights and scarcity of tonnage. Further advances are expected as the season goes on. Combined stocks in Liverpool and Manchester are one-third less than at the corresponding period in 1913. Imports of Canadian pine deals have been a little more extensive lately, on account of the fear of vessels being taken off for the transport of troops from Montreal. Prices remain unchanged.

At Glasgow, the trade shows no improvement, consumption being on very moderate lines. Imports have been arriving very sparingly and a steady though slow reduction of stored stocks is in progress. There is a steady demand for spruce and values are inclined to further advance.

United States

The demand for lumber in the United States continues upon a very restricted scale, being entirely of a hand-to-mouth variety. Had it not been for the outbreak of the war in Europe, it is generally believed that there would now be a decided increase in business activity in almost every line, as agricultural harvests were heavy, and the railroads and other large consumers were expected to make extensive purchases. As it is, the railroads and all lines of trade which were heavy consumers of lumber have decreased their demand. The expected call for large amounts of railroad and car material has not occurred. The present indication is that only a hand-to-mouth demand for lumber will prevail until financial and industrial conditions return to normal. Consumers and dealers are all shaping their stocks with a view to getting over the end of the year with as little lumber as possible, and with their liabilities reduced. Manufacturers, in view of this situation, are trying to keep their production down close to the limit of demand. The curtailment of output has become general in nearly all parts of the country, the opinion being that nothing can be gained by sawing lumber and forcing it upon the present market. There will be a limited, but steady request for lumber to meet current requirements for the balance of the year, as supplies have been kept very low in retailers' hands. Building operations throughout the United States decreased greatly during September, being 32 per cent. less than for the corresponding month of 1913. Reports from the Pacific Coast indicate that manufacturers believe that the bottom of the lumber market has been reached and improvement should be shown from now on. A good volume of trade and advanced prices are expected by the beginning of the new year. Increased curtailment is helping to steady the Pacific Coast markets. Shingle mills are practically idle and trade is very slow. The trade in white and Norway pine at the Tonawandas is a little less than normal, but a fair amount of business is going on. Prices are considered fair, but are showing a slight tendency to sag. In the Saginaw Valley, prices are steady, but the movement is spotty. Receipts at Buffalo have been large of late, so that dealers expect to have a full stock on hand for the winter.

The hardwood trade at Chicago is spasmodic, so far as the demand is concerned. Consumers are buying for present requirements only. At Memphis, a little export business is reported to England and domestic orders are increasing slightly. Shipments are greater than production, and stocks are being reduced slightly, which is assisting holders in keeping prices firm. At Buffalo, the hardwood trade is below normal although a few yards report improvement as compared with a month ago.

New Brunswick Benefits from the War

One of the benefits which New Brunswick will probably reap from the European war situation is an increase in the cut of pulp wood and also an increase in the freight receipts on the Intercolonial Railway from the hauling of this commodity. Speaking of this matter, a leading pulp wood operator of the province recently said: "The imports of pulp from Europe to the United States have been of large proportions, and it is inevitable that the war will have the effect of reducing the shipments from the other side in some degree, and possibly to a very large degree. American manufacturers of paper will have to look elsewhere for their supplies and the pulp mills of Canada should benefit proportionately."

View of Mills in Sarnia.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Ottawa Trade News—Low Water Causing Idle Mills

Ottawa, October 26 (Special to the Canada Lumberman): The water in the Ottawa River has become so low that it has compelled several lumber firms to close up recently, among whom are Shepard and Morse, of Ottawa; Fraser and Company, Deschenes, Que., and McLachlan Bros., Arnprior. J. R. Booth closed down his mill for the same reason several weeks ago and has been hoping to open up again so that he can give employment to the 1,000 men he laid off at the time. He says if the water rises soon he will restart his saw mill and continue operating it until the severe weather sets in. Gilmour and Hughson, of Hull, and The W. C. Edwards Company are about the only large mills on the Ottawa still running. It can readily be understood what effect this early closing of the mills will have on the annual cut, with its consequent loss to lumbermen, when the time for closing down under ordinary conditions is the end of November or the early part of December.

There is little activity in the woods this season. The Estate James Davidson is operating one camp instead of three as they originally intended. This firm, however, is fairly active in its Ottawa factory where it has 225 hands employed only 25 less than at this time a year ago. Their mill at Davidson, Que., closed down for the season a short time ago after cutting about 17,000,000 feet, 2,000,000 more than in any previous year. Most of the cut was pine and spruce.

Since the war the rate of discount on United States currency and cheques has gone up in Ottawa from ¼ of one per cent. to as high as 2 per cent. Just now it ranges round ⅞ of one per cent. Local lumbermen are realizing that this advance in the discount rate may prove expensive to them, as it did to one last week who sold $30,000 worth of lumber and received a cheque from the New York buyer for that amount. He was docked ⅞ of one per cent, for exchange when he presented the cheque for payment at a local bank. This meant a reduction of about $260. Lumbermen here claim that they had better wake up to the necessity of asking for payment at par for sales made across the line. The British exchange, which went up to $6.25 soon after the war, from $4.87 for one pound sterling, is now down to between $4.92 to $4.95. Local exporters say that there is little trade going on between Canada and Great Britain at present owing to the fact that most of the ships usually employed by the Canadian trade have been taken off the trade service for the transportation of troops.

Mr. W. Windham, who is one of the commission delegated by the British Board of Trade, which is equivalent to the Department of Trade and Commerce in this country, to gather information in Canada and Newfoundland on the pit prop situation, was in Ottawa again a few days ago to confer further with the Department of Trade and Commerce. He intends to visit British Columbia to see what the prospects for obtaining a supply of pit props are there before he returns to England.

Montreal Market Letter—Business Continues Quietly

Montreal, October 27 (Special to the Canada Lumberman): Only a small volume of business is passing in the lumber trade. Here and there, wholesalers state that, considering the general situation; they are receiving a fair number of orders, but in the main there is a considerable decrease in business. The banks have shut down very tightly on the contractors, and the reduction in the permits is sufficient evidence of the limited amount of work which is being done. Some builders have been rather badly scared by the statement of a civic controller that 20,000 houses are empty. While there are far more houses to rent than is usual at this time of the year, the statement of the Controller is a strong exaggeration of the position.

As to the future, much depends upon the course of the war. In the event of the hostilities being concluded favourably to the allies, it is believed that construction work which has been postponed will be commenced on a large scale. The indications point to good lumber prices being secured, as there is certain to be a shortage in the cut, and consequently, it may be anticipated, a comparative scarcity of lumber.

One firm has secured from an English house a contract for a large weekly supply of lumber for crating purposes.

Owing to the large number of vessesls on the other side, due to the conveyance of the Canadian contingent, and the heavy shipment of grain from this port, there is a scarcity of room for lumber. In consequence the forwarding of lumber has been held up to a certain extent. Stocks in Great Britain are reported to be large. As far as can be seen, the total shipments from this side will show a decrease of at least 20 million feet, making the season one of the poorest for many years. Freights, too, are high, and it is probable that they will be very stiff at the opening of navigation next year.

Ground wood is a firm market. Heavy rains have been beneficial to the Canadian and United States mills.

There is little change in chemical pulp, which is in good demand at satisfactory prices. It is expected that there will be a scarcity during the winter, as Europe will be unable to supply sufficient for the United States.

There are no stocks of news print on hand. The Canadian mills are shipping all the paper they can manufacture.

Spruce Deals Active in London

Churchill & Sim, London, Eng., in their monthly wood circular, under date of October 5th, say:—Under the influence of a necessarily light importation, and in face of a strong demand for all North of Europe stock, the higher prices established in August through the incidence of the war were to a large extent maintained in September. Deliveries for the month were about 6,000 standards less than in the coresponding month of last year, the short supply having its effect upon the quantities taken overside, and throwing the demand more insistently upon the landed stock, the figures of which, with the exception of Swedish floorings, which arrived very freely, show heavy reductions, especially in deals, battens and scantlings. The curtailment of the Russian and Finnish supplies has enabled the Swedish shippers to take full advantage of the strong demand in this country, and the importation was mainly from this source. A large forward business has been arranged from this side for autumn delivery, and, although prices are high and credits restricted, buyers have not been deterred from operating freely, and a plentiful supply of comparatively cheap money has enabled the business to be financed without much inconvenience.

From the St. Lawrence the imports are:—

Pine Deals ...	173,000 pieces	against	372,000 pieces in 1913
Spruce	318,000 pieces	against	731,000 pieces In 1913
Birch Planks ..	124,000 pieces	against	263,000 pieces in 1913

and from New Brunswick, etc.—

Pine Deals ..	19,000 pieces	against	26 000 pieces in 1913
Spruce	308,000 pieces	against	377,000 pieces in 1913
Birch Pianks .	359,000 pieces	against	292,000 pieces in 1913

The market interest centred in spruce deals during September and prices maintained the sharp advance recorded in August. Several cargoes of Lower Port spruce have been sold, and the London demand for the moment is satisfied, but the available stock is small, and will soon want replenishing. There has been no movement in pine deals, the stock is ample and the demand disappointing. There is no change in the market position of Canadian hardwoods.

Stocks of Oregon timber are heavy, two cargoes having arrived in September. There is little change in the value of good timber, but for inferior stock prices dropped again during the month.

Steadier Trade Reported at Liverpool

Farnworth & Jardine, Liverpool, Eng., in their monthly wood circular under date of October 1st, report as follows:—The business of the past month was steadier and more regular than after the outbreak of war in August, and in volume a fair amount transacted, especially in woods suitable for Government requirements, but the general trade was quiet. Arrivals, with the exception of Baltic goods, were fairly heavy. Stocks, with few exceptions, are not too large, and values all round are advanced. Ocean freight rates have improved, but chartering is slow, and little tonnage offering.

Canadian woods.—Pine timber.—Imports during the past month were moderate, but there is little change in the demand to report; stocks are ample; values steady. Waney pine.—First class: The moderate arrivals were on contract, and landed at Manchester; deliveries about kept pace, but stocks are sufficient; values firm. Second class: There was only a limited enquiry. Red pine.—The demand very restricted. Oak.—Imports again moderate, and on importers' account for special requirements; the demand, however, continues quiet, but stocks are light; values steady. Elm.—Arrivals fairly moderate, viz., about 4,000 cubic feet to Manchester; there has been a fair consumption, and stocks, although not too large, are adequate; values rule high. Pine deals.—Imports have again been on a very moderate

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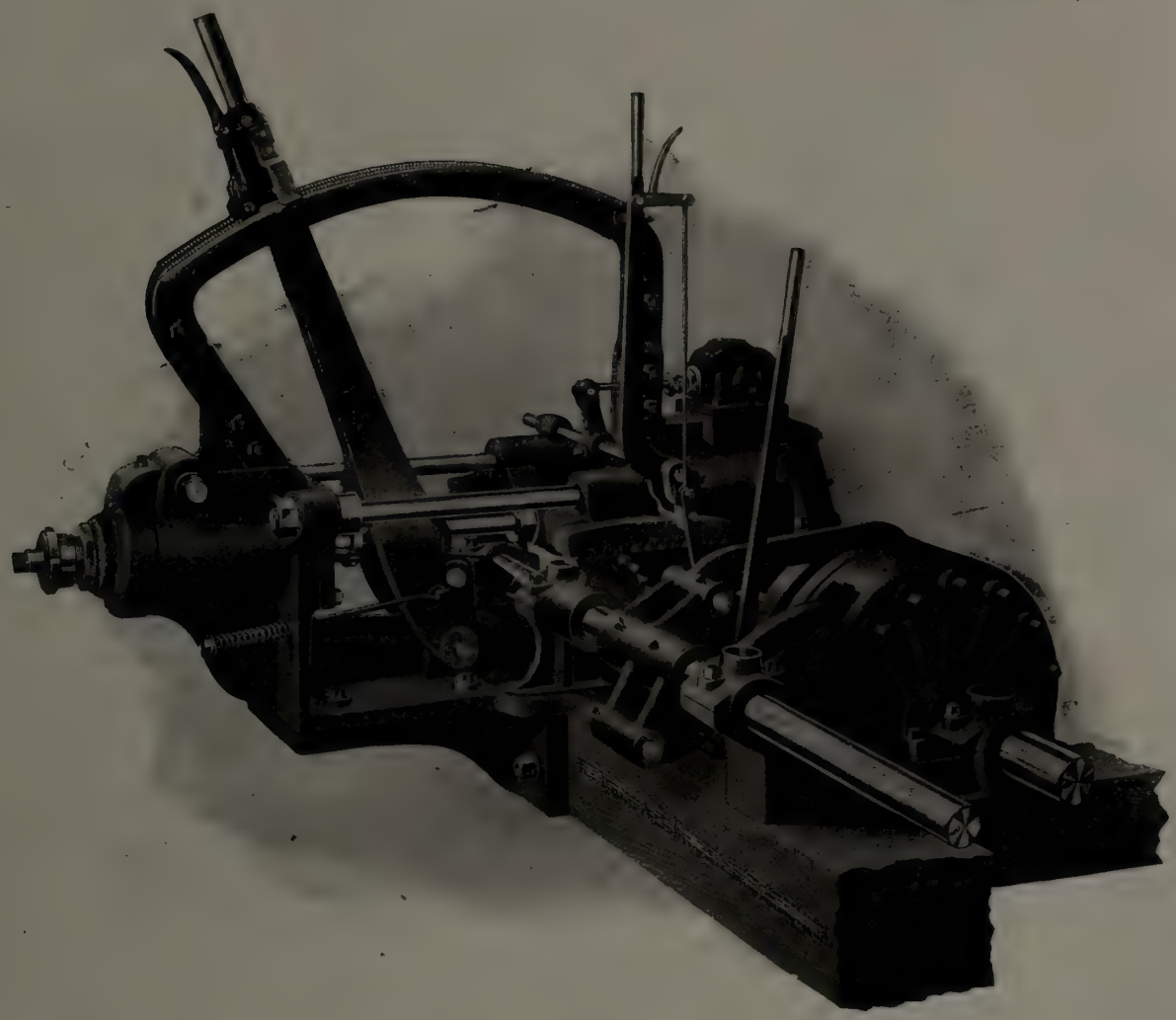

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And you get better lumber, because the travel of the piston is as exact as in a steam engine, so that a steam set works of itself simply cannot cut uneven lumber.

Further, you get more lumber, because it will set up to four inches as quickly as any other machine will set two inches.

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William Hamilton Co., Limited

Peterborough, Ontario

scale, but with restricted demand; deliveries have been disappointing; stocks, although ample, are firmly held, and values are steady. Red pine deals have not been imported; improved enquiry; prices are stronger, and stocks are light.

New Brunswick and Nova Scotia spruce and pine deals.—The import to the Mersey (including Manchester) exceeded that of the corresponding period last year, viz., 10,280 stds., against 8,710 stds.; the demand was less active than during the previous month, but deliveries were satisfactory; recent advance in values has been maintained, and prices now rule on a high basis; stocks are not too heavy, and firmly held. Ocean deal freights have again advanced, and tonnage is limited. Pine deals in fair request; stocks light; prices steady.

Birch.—Logs.—Moderate imports; the demand is quiet, but the deliveries have been fairly satisfactory, and prices steady; stocks in Manchester are sufficient, but in Liverpool light. Planks have come forward in fair quantities, but deliveries have been rather disappointing; stocks are not too large.

British Columbia and Oregon pine.—Arrivals light, viz., about 2,000 cubic feet; there has been a little more enquiry, but the stock is still heavy.

Liverpool Market Continues Steady

Alfred Dobell & Company, Liverpool, in their monthly timber market report, under date of October 1st, report as follows:—Since our last report there has been very little change to note in the condition of our market. Beyond an active demand for certain items, business again ran on somewhat narrow lines. Arrivals were on a moderate scale and values generally are steady.

Canadian woods—Waney board and square pine—The arrivals were on contract to Manchester. Stock still heavy. Oak—There was a moderate import and fair enquiry. Values steady. Rock elm—Stock is light and price high. Birch—Logs—Arrived sparingly and met a steady enquiry at firm figures. Planks—Arrived somewhat freely. There was only a quiet consumption. Values are easier. Pine deals and boards were in moderate request at firm figures. Stocks are ample. New Brunswick and Nova Scotia spruce deals—As compared with the corresponding month last year the import to the Mersey and Manchester is 1,570 standards more, while the consumption is also larger to the extent of 1,440 standards. The combined stock stands at 22,370 standards, being less by 10,740 standards than that held this time last year, which fact, combined with the great restriction in the import of Baltic white deals, places spruce in a strong position. Values tend to increase.

Spruce Deals Active at Liverpool

Smith & Tyrer, Limited, Liverpool, Eng., under date of October 1st, report as follows:—The special feature during the past month has been the endeavour to fill up the gap due to the difficulty in obtaining supplies from the Baltic and White Sea. To some extent this difficulty has been mitigated by the employment of neutral steamers from the Baltic and the immunity from capture enjoyed by steamers from the Northern Russian ports, but the various uncertainties involved have necessarily restricted those operations. The approach of winter has spurred on the activity, but, nevertheless, the import this season must be far below the normal. The war drags on, and is likely to drag on for months, and it is beyond human ingenuity to forecast what new conditions will arise, to be met by new resources. Pitch pine has fluctuated a good deal, and has a tendency to be overdone. Hewn timber is not an active market. Sawn wood in smaller sizes has been in demand for colliery purposes, but the supply has been ample and prices have weakened. Average wood has gone off sparingly. Prime lumber, owing to the quantities of diverted stock thrown on the market, has dropped considerably in price, but lower qualities have been in active demand. Hardwoods have strengthened, but there is little disposition to contract ahead. Spruce deals have moved actively and prices have been well maintained. A keen demand continues and the supplies during the winter are likely to prove inadequate. Birch, both logs and deals, has an improving tendency. Pine deals have been disappointing, especially for the better qualities. Hemlock is wakening up again in sympathy with the improved position of spruce. Pacific Coast woods have been in slow demand. Oregon pine logs are ample in stock. Some enquiry has been experienced for clear spruce.

Glasgow Quarterly Market Report

Calder, Henderson & Livingston, Glasgow, in their quarterly timber market report, under date of October 1st, report in part as follows:—Yellow pine—Waney.—There have been no arrivals since the opening of the shipping season. So far as the demand locally is concerned little or no change has occurred to alter the position, which remains very unsatisfactory, but it is reported that some substantial orders have recently been provisionally fixed in this market by the Admiralty. Lower prices to shipbuilders have failed to stimulate the enquiry for prime deckwood of which the stock consists, and the consumption for the quarter amounted to about 100 loads. While the stock as compared with this period last year shows a decrease it is still too heavy. Values of prime deckwood are nominally around 4s. per cu. ft. Of second class wood and also square timber there is no stock but they have not been enquired for.

Birch—Logs.—Arrivals were chiefly of round logs on contract, and the stock is almost entirely of this description. Hewn logs of fair size that came forward were disposed of and realized fair prices. There is a fair enquiry at present for logs 14-inch and up average, and an advance in values may be looked for. Small wood is slow of sale and can only be moved at low figures. Planks.—Arrivals were principally on contract. Consignment parcels were only in moderate request, but as stocks were light values increased and sales have been made at from £13 15s. to £15 per St. Petersburg standard. The demand has become quieter on account of the decrease of activity in the cabinet-making trade.

Deals, battens and Boards.—The import was exceptionally light, but this had no effect on the demand which has been very slow. The lower grades were in best request. Values are steady, and the stock while low is ample. Good pine sidings are only occasionally enquired for and prices are barely steady.

Pine—Firsts.—Transactions were few and only of minor importance. Seconds.—Were in a similar position to first quality. Thirds.—Enquiries were principally for regulars and that only to a moderate extent. Fourths.—Sales were confined principally to deals 12-inch and up. Regulars and undersizes were slow, but some enquiry is anticipated and values tend to be firmer in sympathy with the higher level of spruce deals.

Red pine.—The quiet conditions prevailing in housebuilding resulted in a limited import and restricted selling. Values on account of the war have advanced. The demand has improved, but business has been hindered owing to the want of stock.

Spruce.—Arrivals were light and principally on contract on merchants' account. Apart from some enquiries for 9-inch and up the demand in the opening month of the quarter was quiet. During the past two months prices have advanced sharply owing to the situation disclosed since the declaration of war. Stocks are light and the likelihood of any further imports is problematical.

New Brunswick and Nova Scotia

Pine.—A slight improvement is anticipated in the demand arising out of the situation of the spruce market.

Spruce.—The import was fairly heavy, the bulk going to a large local consumer. Since the opening of hostilities stocks of all descriptions were quickly absorbed by merchants to cover themselves against probable disappointments of deliveries of goods from the north of Europe. Values advanced sharply. As far as 3-inch deals are concerned the demand at the moment has now been pretty well filled, but there are still enquiries for 2 x 5 and 6-inch, and 2½ x 6½ and 7-inch of long average. Government orders are responsible for the largest part of the present consumption which is expected to go on increasing so long a sthe war lasts. The increased cost of import will militate against a super-abundance of supplies, and as the stock is moderate spot values are likely to advance, but will be regulated to some extent by the competition of Swedish goods until the closing of these ports in winter.

Scotch Lathwood Requirements

The weekly report of the Department of Trade and Commerce in its issue No. 558, contained a trade enquiry (No. 991) under the heading of "hemlock for laths." This inquiry was forwarded by Mr. Harrison Watson, Trade Commissioner at London, who further writes the Department that what is required is timber from which hand riven laths can be manufactured. In Scotland laths are for the most part hand riven, being manufactured wholly by the lath splitters themselves. Before the outbreak of the war, the lathwood was imported from Riga, Russia. The lengths of the logs imported were 9 feet, 8 feet, 7 feet, 6 feet and 4 feet, the proportions of each being about 15 per cent., 45 per cent., 15 per cent., 20 per cent. and 5 per cnt. respectively. These logs were sold at so much per fathom of 288 cubic feet (8 feet x 7 feet x 6 feet). The logs from which Riga lathwood is prepared are riven and then the centres are taken out and used for firewood. It is hoped, however, that if hemlock be used the whole log will be suitable and that it will only require to be riven into two or three pieces. Interested Canadian firms should communicate with the Department of Trade and Commerce and obtain the name and address of the firm referred to in Trade Inquiry No. 991.

The Newfoundland Legislature recently passed a measure to permit the export of raw pulp wood from Labrador and Newfoundland.

The Connecting Link

Way back in 1880 the **Wanted and For Sale** columns of the Canada Lumberman and Woodworker were used extensively by the lumbermen of Canada for the purchase and sale of timber, lumber and machinery.

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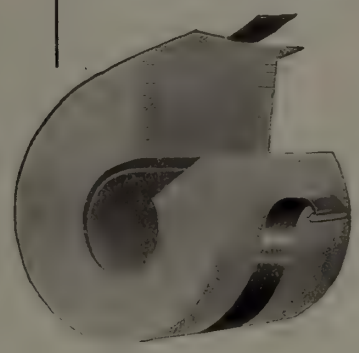

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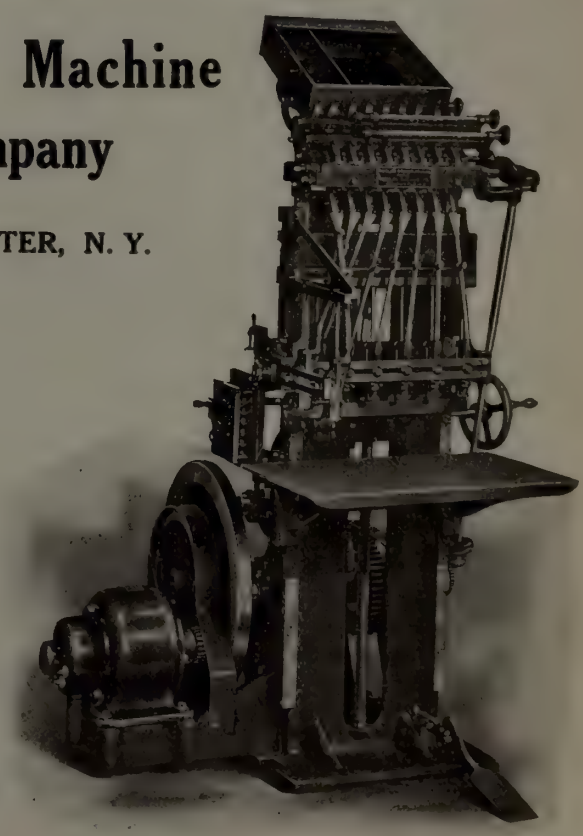

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Steel Frame Cars With Inside Sheathing

A new method of car building which apparently offers a new field for the use of lumber of the lower grades, is rapidly gaining in favor among a number of the larger transportation companies. This method of inside sheathing of steel frame and corrugated steel cars is described in the following extracts from a paper read recently by W. B. Burnett, general master car builder of the Canadian Pacific Railroad, before the American Society of Mechanical Engineers:

The original wooden car, with the single spring draft rigging having the cheek castings bolted to the sills, gave little if any more trouble than modern equipment, due principally to the shorter trains, less density of traffic and to the use of link and pin couplers which compelled gentler handling of trains than is prevalent to-day. The steel underframe car was built mainly to secure a stronger centre construction for the attachment of draft rigging and to get away from the trouble caused by wooden sills breaking and splitting, broken draft bolts, etc.

While having many advantages over the old wooden car, the steel underframe car developed some troubles peculiar to itself, the most important being due to the fact that the body being carried on a rigid frame and not held together by the strains resulting from its weight, as in the old trussed cars, has a tendency to develop slack in the superstructure. This in turn affects the roof and sheathing. One principal trouble with outside sheathed cars is that, after they have been in service a comparatively short time, the sheathing frequently loosens at the end sill and at the side sills near the bolsters with resultant leakage of grain.

There were some steel frame box cars built previous to 1909, but the writer has been able to secure data on only the outside sheathed types. Of these 2,700 were in service on the Norfolk & Western, of which the first 100 were built in 1902; the owners state that they were satisfactory and the same type has been purchased on subsequent orders. The Rock Island and Frisco lines had in service at that date approximately 5,000 cars similar to the Norfolk & Western, and these also appear to have given satisfaction as the owners have reordered the same type several times. All of these, however, were outside sheathed and as regards leakage at the sills, had comparatively little advantage over the wooden cars. Recently both of these lines have purchased some inside sheathed cars. The Frisco car of this type is fully described in the Railway Age Gazette, October 3, 1913.

In 1908 the Canadian Pacific designed its first steel frame inside sheathed box car. This car avoided the disadvantages of the outside sheathed car, and at once obtained a further reduction in weight and provided for cheapness of maintenance by the use of steel superstructure without the additional lumber required by the outside sheathed car. With practically no preliminary experimenting 500 of these cars were built, and since then over 30,000 have been built similar to the first cars, with the exception of several refinements of details, such as corner and door posts, end doors and side plates, and the joining of flooring and lining. These changes have not affected the general design of the car, but are the improvements that have been introduced from time to time to reduce weight and simplify the construction.

Advantages of the Steel Frame Car

The steel frame inside sheathed car has several advantages over the types previously used, notably in that the tare is low in proportion to the capacity. There is such a variation in the figures used for the cost of hauling per ton mile, that no attempt is made to say what the saving would amount to, but certainly the advantage of having a car equal, if not superior to other cars in all respects, and weighing from 1,000 to 5,000 pounds less, will appeal to all traffic and operating men. Not only is there that much less dead weight to haul when the car is empty or partly loaded, but additional lading can frequently be carried. The actual limit on the paying load that can be carried in a properly designed car is the total weight on the axles. Thus, a car having 5-in. x 9-in. axles with such a tare weight that, when deducted from the capacity of the axles, allows the car to be safely loaded to 88,000 lbs. could, if dead weight be reduced by 3,000 lbs. safely carry a paying load of 91,000 lbs. and retain the same strength. Thus the actual capacity of the car is increased almost four per cent., with a better ratio of paying to dead load.

It had been thought necessary to assist the wooden type of superstructure by heavy roof construction, some going so far as to use different methods of diagonal bracing, but with the steel car it has been found that there is no appreciable local movement of the framing in the heaviest service which makes a simple proposition of the roof as it has only to take care of itself. This presents a simpler problem to roof designers, making it possible to design a roof much lighter, without necessity for the use of purlins or ridgepoles to strengthen the car. It is obvious that unnecessary weight in the roof raises the centre of gravity, increases the tare weight and cost and has other disadvantages.

In explanation of the local movement of this style of framing, it is well to mention tests we have made in jacking up this type of car, which demonstrated that the car would take a gentle twist from end to end, allowing the bolsters to be slightly out of the same plane horizontally. This twisting was accomplished without any perceptible local distortion of the sides or ends. The capacity for twisting is a condition to be desired as it allows a car to adjust itself to uneven track conditions.

In addition to being 5½ inches narrower than the distance over the outside of the sheathing of a wooden car, the superstructure of the Canadian Pacific car is protected by the framing, so that a side swipe that would do serious damage to an outside sheathed car frequently does not touch the lining and is resisted by the framing without damage to the posts or braces. Frequently it is found that a side swipe that would almost demolish the sides of a wooden car only bends the steel framing, and in making repairs, the lining is merely removed, posts and braces straightened and the original lining replaced, the whole cost being the comparatively small labor charge. Jacking frames are being installed at all of our principal repair points for all classes of steel cars, and while not original with the Canadian Pacific, they have been amplified to better take care of steel frame box cars. With these frames, many jobs that would require the car to be cut apart, taking several days, can be done in a few hours without cutting the rivets. With modern steel frame cars, these jacking frames are as much a necessity as the blacksmith shop or any other part of the shop.

It is difficult to clean an outside sheathed car properly when it is unloaded, on account of grain lodging between the framework and also on account of the opening where the posts and braces meet at the bottom becoming obstructed, resulting in grain being retained between the sheathing and lining with resultant complaints from shippers. All of this is overcome by the clean joining of the lining and the floor in the steel frame cars, and it is believed a change of this kind would have come years sooner if designers had kept in close touch with service conditions. One advantage of the steel frame car is that outside of possible repairs due to wreck damage and to wear and tear of couplers, wheels, brake shoes and journal bearings, the car does not deteriorate more rapidly in service than when stored.

The grading of lumber for use in these cars is an item that has received much consideration. Yellow pine or fir has so far been the principal lumber used, although we have experimented to some extent with spruce, but although it has the advantage of being lighter, it seems to be more difficult to dry spruce sufficiently for this purpose. Great pains have been taken to avoid knots that are too large or numerous, and while it is generally desirable to have lumber as free from knots as possible, I have never in the inspection of many hundreds of cars seen where a knot had fallen out. It is, however, desirable to have lumber as free from sap and shakes as possible and thoroughly dry.

When the first of these cars were built outside of the Canadian Pacific shops we had considerable difficulty in getting the lumber properly dried, due to lack of both experience and facilities on the part of the car companies. We have about 3,000 cars on which the lumber has shrunk and given them a bad appearance, but this result was expected, as when the cars were built the lumber was quite green. The sheathing on these cars could be tightened for less than $4 per car, but very few have been tightened, owing to receipt of practically no reports of loss or damage to lading due to the shrinkage; also they do not frequently reach our main repair tracks, being shopped only for such repairs as wheels or wreck damage. We have not considered it advisable to shop the cars for a defect which is almost entirely a matter of appearance. The lining shrinks as much in two months of summer weather as it ever will.

The lining should not be matched before drying, as it warps and curls, rendering it difficult to make a tight joint. The rough size of lumber should be at least one-quarter inch greater than the finished dimensions. In establishing limits for drying lumber no information or data whatever could be secured, and after experimenting we came to the conclusion that a piece of this lining of full cross-section subjected to a temperature averaging 170 degrees F. for 96 hours should not lose more than six per cent. in weight and that lumber represented by samples losing more than 10 per cent. must not be used until further dried.

The receipts of lake lumber at Buffalo, N.Y., to October 1st this year were 51,759,000 feet, a falling off of about one-third from the same period of last year, when they were 76,333,982 feet. September receipts were 11,364,000 feet. Shingle receipts to October 1st were 421,000,000, a decline of about 18 per cent. from last season to date, when they were 523,908,000. Shingles have been in ample supply this year and the prices have been weak.

The death is reported of Mr. C. Spearman, lumber manufacturer, Stittville, Ont.

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Overhead Yarding

By James C. Hearne*

During the past year we have been working in comparatively rough ground and found many corners that we could not afford to railroad close enough to get direct yarding. We had been taking out these long corners by means of swing donkeys, one donkey being placed in the timber and doing the yarding while another at the landing dragged the logs in from the swing and loaded them. The roader's haul runs from 800 to 1500 feet. Several of the long corners were in steep ground and when pulling the logs down we had much trouble with the logs on account of their running out of the chokers, behind stumps, etc. We might have improved this by building fore-and-after roads but as a rule the amount of timber in one of these corners would not justify the expense of building such a road. This is our excuse for trying an overhead line for bringing the logs in.

The system is not new, having been worked with a few slight differences by many loggers. It is so simple as to need very little description, so that about all left for us to do is to tell you how it worked, our troubles with it, our failures and any success we had.

The standing line is stretched from a stump or gin pole near the landing to a tree near the yarder, the height of these depending on the nature of the ground. On this line a two sheave carriage runs, the sheaves travelling on the standing line. The skidding line passes through a block hanging from the front lower corner of the carriage, thence through a swinging block and then fastened to the lower side of the carriage. The haulback tail block is fastened near the base of the tail tree, thus bringing the skidding line and block to the ground so the chokers can be put on the swinging block. The haulback is attached to the swinging block and not direct to the carriage. By this system the logs are not lifted bodily and transported to the landing, but are carried as conditions warrant. Sometimes they are dragging, sometimes one end is lifted and sometimes they are lifted free.

In coming down the steepest line we had, a slope of about forty degrees, we had considerable trouble with the chokers coming unhooked and began to think we had fallen down on the very point we were trying to remedy. For about two days we were up in the air but then we tried out chokers with rings instead of hooks and made of lighter wire, using ¾-inch and ⅞-inch instead of the 1⅛-inch and 1¼-inch that we yard with. These small chokers stood up to the work alright, there not being the great strain on them that there is when dragging logs on the ground, and practically ended the trouble of the logs getting away. This made it necessary to change the chokers at the yarder, the large ones being used only in yarding and the small ones in the loading, but took an inappreciable amount of time. On the large logs when it was deemed necessary to keep the large chokers on the roader the unhooking was overcome by using light dog chains—a chain about 30 inches long with a dog hook on each end. One dog was driven in the log, a wrap taken in the choker just above the hook and then the other dog driven. All these provisions are, of course, unnecessary when roading the logs on the level or up hill, which we found much easier than roading them down.

The largest logs we have handled ran about 14,000 board feet and the greatest distance 1,200 feet, both of which might be increased by using heavier lines. Our standing line is 1¼-inch by 6/19-inch, skidding line ⅞-inch by 6/19-inch and haulback ⅝-inch. The skidding line was strong enough for all the down-hill roading but when we started bringing the logs uphill we put on 1⅛-inch line.

We tried one standing line 2,000 feet long but failed. The line carried several small logs but failed on logs of 2,000 feet. We were warned by the manufacturers that 1¼-inch was too light for the work, but wanting to use the line for yarding lines after we had finished that particular corner we preferred to take the chance rather than buy lines that would be too heavy for yarding. We are not satisfied yet that it would not have held under ordinary conditions. The logs dropped over a bluff just after leaving the tail tree. We could find no means of easing the jerk and we think it was this jerk that caused the failure.

The standing line is stretched by means of two small double blocks and ⅝-inch line. We have no extra drum for this on our donkeys so that we have to take a pull on the tightening line with the main line and then clamp it around a stump. We rigged up one of the donkeys that had a straw line drum for this work by putting a ratchet and dog on the straw line drum, but from the natural perversity of things, or something, we are seldom able to use this donkey in the places we rigged her up for. The standing line is tightened to a pretty good tension but no special effort made to take out all the slack, our only object being to keep it well clear of the ground and stumps. It pays to blow the stumps that are directly under the line for while the logs can be lifted over them, they are more or less of a nuisance.

We do not know its capacity. As a rule these corners are not the best of logging chances and the roader is usually waiting on the yarder. The most we have taken out in a day is 12 carloads or about 65 M. feet. If the yarder is in an extra good show, an ordinary donkey is hardly fast enough on the main line. We helped ours some by lagging the drum, but even then it did not travel as fast as it should for an overhead rig.

The logs do not come in quite so handily for loading as when they are brought in by a yarder, usually coming end on to the track, which makes it harder for the loaders and would probably require a third man if the yarder were in a good show.

We do not recommend the rig to anyone; we use it ourselves only when we are forced to and will still go to considerable trouble to get direct yarding, but we are glad to use it for such places as we have been working it and feel that it is a marked improvement over the old ground roading system that we used for the long corners.

* Address delivered at the recent Pacific Coast Logging Congress.

Lumber Consumption in the U. S.

Statistics have been compiled by the Office of the Industrial Investigations of the United States Forest Service which show, for the first time, precisely how the lumber produced in the country is utilized. About forty-five billion feet of lumber of all kinds is the annual production in the United States; of this, nearly 25 billion feet (board measure) are further manufactured, the other portion remaining for rough construction lumber and for similar purposes. This is exclusive of that material which reaches its final use in the form of fuel, railroad ties, posts, poles, pulpwood, cooperage, wood distillates and the barks and extracts demanded by the tanning industry.

The quantity and kinds of wood received as raw material by shops and factories and converted by further manufacture into finished and saleable articles is shown in the accompanying table.

Between fifty and sixty per cent. of the lumber produced is subject to further manufacture. Nearly or quite one hundred different woods are used in the United States under their own names, while an unknown number find their way to shops and factories without being identified or separately listed, except under general names. In quantity the softwoods, the needle-leaf or coniferous trees, are most important, but there is a greater number of species among hardwoods or broad-leaf trees.

Wood Used By Each Industry

Planing mill products	13,428,862,066
Boxes and crates	4,547,973,180
Car construction	1,262,090,371
Furniture	944,667,807
Vehicles and vehicle parts	739,124,483
Woodenware and novelties; and dairy, poultry and apiary supplies	405,286,436
Agricultural implements	321,239,336
Chairs and chair stock	289,790,560
Handles	280,234,571
Musical instruments	260,195,026
Tanks and silos	225,617,686
Ship and boat building	199,598,228
Fixtures	187,132,848
Caskets and coffins	153,394,557
Refrigerators and kitchen cabinets	137,616,266
Excelsior	100,247,000
Matches and toothpicks	85,442,111
Laundry appliances	79,502,040
Shade and map rollers	79,291,575
Paving materials and conduits	76,067,000
Trunks and valises	74,669,997
Machine construction	69,459,430
Boot and shoe findings	66,240,200
Frames and moulding, picture	65,477,783
Shuttles, spools and bobbins	65,148,190
Tobacco boxes	63,154,226
Sewing machines	59,946,527
Pumps and wood pipes	55,826,938
Pulleys and conveyors	35,862,900
Professional and scientific instruments	35,070,928
Toys	28,926,552
Gates and fencing	27,450,540

The Commissioners from England who are enquiring into the possibility of secuirng a supply of mining timber in Eastern Canada, visited St. John, N.B., recently on their return from Newfoundland. They had interviews with a number of prominent lumber merchants and representatives of shipping interests in the St. John Board of Trade rooms. They learned that there was a plentiful supply of mining timber to be had in New Brunswick, and expressed themselves as satisfied with the possibilities of securing the timber in that province. They also visited Halifax and left for points in Quebec.

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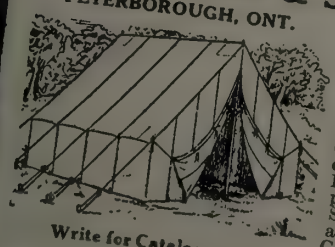

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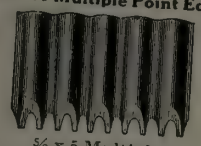

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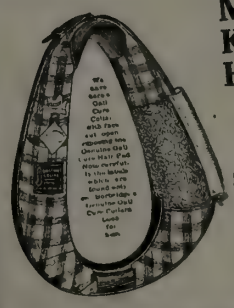

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A quick remedy for Cough, Broken Wind, Heaves, Colics, Worms and diseases of the Urinary Organs. It is a powder, not a liquid.
Dr. Ed. Morin & Co., Ltd.
QUEBEC

W. H. Dwyer & Co., Ltd.
OTTAWA, ONT.
Offices also at Fort William and Montreal
Largest Wholesale Dealers in Hay and Oats in Canada
Write or wire us at any of the above offices. We do the rest.
"HE WHO SERVES BEST PROFITS MOST."

The Alligator Brand
HARNESS, COLLARS, AND SADDLES
Lamontagne Limited.
Balmoral Block, MONTREAL

How We Cut Sander Upkeep Expenses

I am foreman in the sanding room of one of the largest furniture manufacturing plants in the country. We use belt sanders, roller feed drum sanders and drum sanders of the new endless bed type. Each type of sander has distinct advantages, and we find that all three are necessary to enable us to get satisfactory sanding, economically. But it isn't so much the saving we make by distributing our work among all three types of sanders that I want to mention as it is a condition regarding our endless bed sanders that came up a short time ago.

Any sander-man—and this article is intended principally for sander operators—is familiar with the construction of the endless bed sander. Instead of stock being fed by rollers it is carried through the machine, beneath the drums, on an endless bed studded with rubber pads or disks, set close together. These rubber disks are resilient, equalizing slight variations in thickness of stock, permitting many pieces being sanded at one time. This works out very nicely if the variation isn't too great.

Of course when we installed our endless bed sander we knew that the rubber faced bed was not going to be permanent. But we saw the great possibilities of the machine and realized that the tremendously low cost of sanding that the machine would give us on our small stuff would more than offset the expense of occasionally replacing a few disks.

We had been operating the machine about ten months when the boss called me onto the mat. He said we were using more of the disks than he thought necessary, and put it up to me to locate the trouble and rectify it.

I examined the beds of the sanders closely and was surprised to find so many of the rubbers with chipped and broken edges. The operators were replacing two or more daily. There was no reasonable explanation why this should be so, for the stock in passing through the machine laid flat upon the bed, covering several rubbers at one time. There was no reason why particular strain should be exerted on the edges of the rubbers. I determined that the fault was in the way the operators were feeding stock into the machine. I didn't have to watch them more than an hour to learn that in this I was right. Here's what they were doing:

They were running the drums entirely too high, that is the cutting point of the drum didn't extend sufficiently below the platens to enable free and easy cutting. To compel the drums to take the desired cut, instead of lowering them a trifle, as could have been most conveniently done, the men were raising the bed, putting on more pressure. This resulted in a terrific strain on the bed, and it has been a wonder to me ever since that the machine stood it at all.

The bed was raised so high that to simply place stock flat on the table and slide it under the platens, as should have been done, was out of the question. To start the stock men were tilting it so the upper edge would catch under the platens and then they pushed it down flat. This exerted an enormous strain and gouging action of the lower edge of stock on the rubbers, resulting in chipped and broken edges.

When we got things straightened out, with the drums cutting as they should, and just enough pressure on the rubber, to assure stock feeding, it is an actual fact we got more and better sanding and the expense of rubber replacements dropped to practically nothing. And by eliminating the terrific strain on the bed, I am confident that the active life of the machine will be doubled.—L. F. in Berlin Quality.

"Ten Commandments" for Band Saw Filers

Here are a few important points that should have close attention, to be a successful filer:

One—Be on friendly terms with sawyer and mill foreman; cooperate with them in order to get good results.

Two—Have certain saws on bench every day, regardless of how well they are running. You might find two or three small lumps or one or two tight places. If sawyer should happen to knock one out do not neglect your daily (regular) saw on bench; go over it first, and then work on cripples.

Three—Look your band mill over closely, often, and see that there is nothing loose, to get out of alignment. Watch your guides and keep them set in alignment with saw line every day.

Four—Watch your teeth closely; see that swage is working properly; always try side gage when swaging. See that emery wheel is always same shape; do not let it wear more in one place than another, as it will change hook as well shape of tooth.

Five always keep your saws the same length on back. Do not let them get uneven, as it will cause them to oscillate on wheels and cause sawyer to slow up on his feed by not having confidence in the saws.

Six—Be certain that your roll is not dishing saws, as it will make considerable more work on account of having to level after putting in tension.

Seven—Keep your roll well oiled and all lost motion out of it.

Eight—If saws get to running badly, first satisfy yourself that the blade is O. K., then that the teeth are in proper shape. If this does not remedy the trouble, do not start to experiment by changing your saws. You will find your trouble in the band mill or carriage track, and possibly in carriage.

Nine—Never accuse any one in the mill of doing you wrong until you have set a trap for him and caught him with his hands in the fire.

Ten—Do not get neglectful with your work. Keep your filing room in good order at all times and your tools where you can find the one you want, at any time.—The Woodworker.

New Zealand's Imports from Canada

Imports into New Zealand, from Canada during the last two fiscal years included the following:—

Timber	1912-13	1913-14
Laths and shingles	£939	£4,856
Sawn, undressed	2,450	1,260
Sawn, dressed	400	

Paper to the value of £105,426 was imported during 1913-14. The slight increase under this head over the figure for the previous year was made up almost entirely of wrapping paper, of which £2,762 was imported from Canada, as compared with £101 in 1912-13. Printing paper from Canada enjoys a preference of 20 per cent. in the New Zealand market. The value of this import last fiscal year was £97,503, a slight decrease from the figure for 1912-13.

Tubular Steel Tripod

Several novel features have been introduced in the construction of the Morris Folding Tubular Steel Tripod. These are described in bulletin Y17, which has been issued by the Herbert Morris Crane & Hoist Company, Limited. A feature which will appeal to contractors, structural engineers, stone workers and other users of this kind of lifting gear is the fact that the tripod can be folded up without removing any bolts or pins. A broad flange is provided on each foot to enable the tripod to carry a load on soft ground, and a square point gives a good grip on harder surfaces. Another new feature is the provision of a small pulley at the top of the tripod, by which a small rope can be used to haul up the heavy lifting block or to handle very light loads quickly. Every tripod is tested with a fifty per cent. overload, so that the safety of the user is always assured. It is also worthy of note that even in the one-ton capacity the tripod is light enough for one man to carry on his shoulder. Those who have had experience of hauling around the home-made wooden shear-log will appreciate this feature to the full.

To Complete Canadian Northern

"Despite the chaotic condition of the money markets, due to the war situation, we intend to finish up the transcontinental line as quickly as possible," said Sir Donald Mann, president of the Canadian Northern, recently, before his departure for Victoria, to confer with Premier McBride. He added that the company has 3,000 men employed in British Columbia and would keep them at work until rail laying was finished. Grading, he believes, will be finished by the end of October. Steel has been delivered or is en route for all sections of the main line west of Yellow Head Pass.

The Hardwood Manufacturers' Association of the U. S.

The Board of Directors of the Hardwood Manufacturers' Association of the United States, at its quarterly meeting decided to hold the next Annual Convention of the Association at Cincinnati, January 28-29. The sessions will be held at the Hotel Sinton. This will be the 13th Annual Meeting, and the fifth to be held in Cincinnati. The meeting this year was held in Memphis, January 21-22.

Gordon Grant & Company, Limited, Port of Spain, Trinidad, under date of October 1st, report as follows:—Lumber—With no arrivals, stocks are being worked off. Nova Scotian white pine and spruce are always saleable.

Mr. Harry Brown, one of the salesmen of the Atlantic Lumber Company, 110 Manning Chambers, Toronto, volunteered for active service with the 48th Highlanders and is now with his regiment at Salisbury Plains, England. Mr. Brown is a son of Mr. Harry Brown, president of H. H. Brown Limited, Liverpool, England, one of the best known firms importing American and Canadian lumber.

Our Generous Sizes

Are what the Lumbermen require in

Mackinaw Long Pants
Mackinaw Short Pants
Mackinaw Strap or Cuff Knickers.
Heavy Tweed Pants
Heavy Tweed Knickers
Etoffe Pants
Etoffe Knickers

Buck Skin Mitts
Mule Skin Mitts
Pig Shin Mitts
Hand Knit Wool Mitts

Buck Skin Gloves
Horsehide Gloves
Mule Skin Gloves
all in generous sizes.

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Smart-Woods LIMITED

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Essay Competition for Woodworkers

Prizes to the value of Thirty Dollars are offered by the Publishers of the Canadian Woodworker for the

Best Two Essays

on Subjects of Practical Interest to the Trade

First Prize $20 **Second Prize $10**

The following must be regarded as the conditions of the competition:

1.—Competitors shall be engaged in some branch of practical woodworking in the Canadian Trade.

2.—The subject of the essay shall be at the selection of the competitor, preference being given to topics affording a solution to some practical problem of general interest to the trade or constituting a "short cut."

3.—Drawings (if any) may be sketched roughly, in which case they will be re-drawn at the office of the Canadian Woodworker. Preference will be given to drawings executed neatly in Indian ink.

4.—Essays of about 1,000 words shall be written or typed on one side of the paper only, leaving ample marginal space.

5.—Articles for the December issue competition must reach the Editor not later than November 30.

6.—Awards shall be made on the basis of practical interest rather than literary merit.

7.—The decision of the publishers in the matter of awards shall be final.

8.—The publishers reserve the right to publish the articles submitted.

Address all communications to THE CANADIAN WOODWORKER, 345 Adelaide Street West, Toronto, marking your envelope in the lower left hand corner, "Competition."

We make a Specialty of

Conveyor Chains

For Lumbermen

WE make them from carefully-selected iron, and every link is guaranteed ***strictly hand-made***—not the inferior machine-made.

The point is worthy of special emphasis.

We make the chains according to any dimensions desired, guarantee splendid workmanship; uniformity; dependability.

Prices are the lowest possible for the class of work we furnish, and Quality above criticism.

Let us quote for your needs!

Send for catalogue giving estimated weights of various sizes of chain; prove test; breaking, straining and safe-working loads, and giving hints regarding the care of chain which will prolong a chain's usefulness.

Woodhouse Chain Works

P.O. Box 525 **TRENTON, N.J.**

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Shingles

Campbell, MacLaurin Lumber Co.

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BUSINESS AS USUAL

ENQUIRE FOR

PINE—Mill Run, Box and Mill Cull, 1″, 1¼″ 2″ and 3″
SPRUCE—Large and well assorted stock.
HEMLOCK—Anything you may require.
BASSWOOD—Mill Run, ⅝″, 1″, 1¼″ and 1½″
BIRCH—Mill Run, 1″, 2″ and 3″. Also Mill Culls.
ASH and ELM 1″. Mighty scarce—but still have some.
LATH—Large line Mill Run Spruce and Pine.

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

Eastern Townships Bank Building, MONTREAL, Quebec

EDGINGS

Ontario

The Ontario Government has sold the timber in the township of Fralick to Manley Chew, of Midland, for $8.50 per thousand feet and $2 per thousand feet timber dues.

The Algoma Timber & Lumber Company of Michigan, which recently secured an Ontario charter with authorized capital of $120,000, report that they do not intend to commence operations in Canada at present.

The Beaver Wood Fibre Company, Limited, Thorold, Ont., has been incorporated with authorized capital of $1,000,000. The provisional directors are H. E. McKitrick, G. R. Kappele, Harry Riley, G. W. Morley and B. H. L. Symmes, all of Toronto.

The James Horrigan Company, Limited, Port Arthur, Ont., has been incorporated to carry on business as lumber and pulpwood manufacturers and dealers. James Horrigan, contractor, of Port Arthur, is interested. The authorized capital of the company is $100,000.

The Newaygo Company, Limited, Port Arthur, Ont., has been incorporated to carry on a general business as lumber merchants, and to erect sawmills, etc. The authorized capital of theh company is $200,000 and its present address is care Keefer, Keefer & Towers, Port Arthur, Ont.

The Shevlin Clarke Company's mills at Ft. Frances, Ont., were closed down for the season on October 13th. The company now have a large quantity of lumber in their yards. The planer will run all winter, giving steady employment to a large number of men. It is estimated that the season's cut will be something over 75,000,000 feet.

The Upper Wahnapitae River Improvement Company, Limited, has secured an Ontario charter for the purpose of constructing improvement works upon the Upper Wahnapitae River and its tributaries for the floating of timber. The authorized capital of the company is $40,000 and its head office is at Sudbury, Ont. The provisional directors are Wm. McVittie, Wilbur Cochrane and A. H. Skene.

A winding-up order in connection with the Northern Island Pulpwood Company which has been operating on the north shore of Lake Superior with head office at Port Arthur, Ont., has been made by Chief Justice Falconbridge. The company's capital is $100,000 and the principal cause of its difficulties is said to have been lack of sufficient capital. The assets consist of the plant at Port Arthur and timber cutting rights valued at about $400,000.

The Wells-Higman Company, of Traverse City and St. Joseph, Mich., purchased thirty-two square miles of virgin timber situated on Botchawana Bay, District of Algoma, Ontario. This land was bought of the Botchawana Timber Land Sales Company. It is thirty-five miles north of Sault Ste. Marie by water and twenty-five by land. The Wells-Higman Company intend to export this timber from Canada and keep the Traverse City plant operating for some years. The Canadian license shows a capitalization of $215,000, all paid in. The license allows the company to operate plants, run boats, export timber and expand along lines necessary to develop their regular business.

The Ontario Department of Lands, Forests & Mines, report that the paper mill being erected at Iroquois Falls by the Abitibi Pulp & Paper Company is rapidly nearing completion. It is expected that the roof will be in place during November. The plant is to be a 200-ton mill, but it will have an actual capacity of 20 tons in excess. Under the government lease it was to have been erected some time after the new pulp mill was in operation and market facilities had become established. The bulk of the pulpwood from the surrounding district now goes to United States markets for the manufacture of plain print paper. When the new paper mill is in operation, in the course of a month or two, the finished product will be turned out on the premises and it is expected that settlers within a considerable radius will have a profitable market for their pulpwood.

The Field Lumber Company, Field, Ont., notice of whose incorporation was recently published in the Canada Lumberman, have an authorized capital of $50,000, of which $43,000 has been subscribed and paid for. No stock of the company has been offered for public sale. The company operate at Field, Ont., on the C. N. R., new Ottawa and Selwood or Fort William line. Their sawmill and planing mill are located at Field where they also conduct a general store. The company own the townships of Gibbons and Bastedo, formerly owned by J. R. Booth, Ottawa. They also recently purchased three square miles of excellent pine timber in the Township of Fell which adjoins their other limits. The president of the company is Mr. Z. Mageau and the secretary-treasurer is Mr. J. U. Lamarre, who formerly conducted a store at Field which has been taken over, together with its stock, by the company. Other directors of the company are J. M. Cousineau, P. Marchildon and Jos. Vezina. They intend to manufacture about 4,000,000 feet a year, made up of pine, spruce and hardwood. They will also handle cedar poles, posts and ties.

Eastern Canada

A report from Daveluyville, P.Q., recently stated that the assets of B. Nault, lumber dealer, were to be sold on October 27th.

A report from Sayabec, P.Q., recently stated that the assets of E. A. Dufault, lumber manufacturer, were to be sold on October 23rd.

A report from Fredericton, N.B., states that Mr. W. D. Gunter of that city has purchased the Powys property in Kingsclear and will carry on lumbering operations there this winter.

A report from Truro, N.S., states that it is reported that Mr. G. A. Warman, of Truro, has bought out the Atlantic Lumber Company, with head office in Truro, and large holdings in Colchester, principally in the Salmon River country.

W. R. McCloskey Limited, has been incorporated with head office at Boiestown, N.B., with authorized capital of $40,000, to engage in a general lumber and mercantile business. Those interested in the company include H. T. McCloskey, Boiestown; P. J. Hughes, Fredericton, and R. W. McLellan, Fredericton.

The powers of the Chateauguay Electric & Manufacturing Company, of Sainte Martine Co., Chateauquay, P.Q., which has recently been incorporated

with authorized capital of $145,000, include dealing in and manufacturing all kinds of lumber. Those interested include U. Archambault, Ste. Martine, and J. A. Fournier, Montreal.

The sash and door factory of Mr. R. Neville, Jr., Outremont and Wiseman Avenue, Outremont, P.Q., has been destroyed by fire, the loss being estimated at $100,000. The mill was erected four years ago, and was very well equipped. A large quantity of lumber was also burned. The insurance covered about half the loss.

The Lewis Hardwood Company has secured a Dominion charter to carry on a lumber manufacturing and selling business, with head office at Lewiston, N.S., and authorized capital of $50,000. Those interested in the company include G. E. M. Lewis, and F. L. Lewis, of Truro, N.S., C. H. Andersen, of Lewiston, and John Lewis, of Brownville, Me.

R. C. Tait, Limited, have been incorporated in New Brunswick to carry on a general mercantile business. The powers given to the company include taking over the stock and business of R. C. Tait, of Shediac, N.B., and engaging in the manufacture and sale of lumber in all its branches. The authorized capital of the company is $99,000, and the incorporators include R. C. Tait and A. J. Tait, of Shediac.

The Lumber Corporation of Nova Scotia, Limited, of Halifax, announce that it has been instructed to purchase 26,000 cords of pit props, 6½ and 9 feet in length and 3 to 6-inch tops, to be sent in weekly shipments of 2,000 cords from Halifax to Great Britain between November 1 and February 1. The company hopes to have the orders filled in car lots by farmers and small operators within easy reach of lines of railway.

The Charlemagne and Lac Ouareau Lumber Company have just started up a new clapboard mill at Montcalm, P.Q., designed by Mr. I. N. Kendall, of Ottawa. This will replace one burned down last year. It contains a cut-off saw, two clapboard machines, two clapboard planers and butters, and a circular saw. The clapboard machines were supplied by the Lane Manufacturing Company, Montpelier, Vermont; water wheels by Barber & Sons, Meaford, Ont.; and the balance of the equipment by the William Hamilton Company, Peterborough, Ont.

The Cascapedia Booming Company, which has recently been incorporated in the province of Quebec, is now being organized. A meeting to elect officers will be held shortly. The company's capital stock will be $50,000. It is being organized for the purpose of booming the logs of the different operations on the Grand Cascapedia River. Montgomery & Sons Company, New Richmond, P.Q., and the Cascapedia Manufacturing and Trading Company will be the chief stock holders, and between them will probably operate the company. It is also expected that the other timber hodlers on the river will join in the organization when it is complete.

The Berkshire Lumber Company, Pittsfield, Mass., who recently acquired valuable timberlands in Shelbourne and Queens Counties, N.S., report that they are not making any plans to operate this tract of timber at present, as they do not feel inclined to sacrifice lumber on the present market. The timberlands secured are largely covered with pine and were bought more as an investment than anything else. They are only a short distance from Shelbourne where they would be manufactured, and the product could be shipped into Boston at a very low cost. At present, the company report they do not expect to operate upon this property for from three to five years at the earliest.

Western Canada

J. S. Maynes, lumber dealer, Harrowby, Man., has been succeeded by W. A. Blamey.

The Lumber and Land Company, Limited, Moose Jaw, Sask., has been incorporated in Saskatchewan, with authorized capital of $10,000.

A large New York State firm is negotiating with the Board of Trade of Medicine Hat, Alta., in connection with a proposition for establishing a 100-ton newsprint mill at that point.

The Ladder Lake Lumber Company, Limited, operating the plant formerly owned by the Big River Lumber Company, at Big River, Sask., has secured registration in Saskatchewan under the act respecting foreign companies.

A London cable states that the moratorium for bills expired on October 17th and that five companies suspended payment and had receivers appointed, among them being the Canadian Pacific Lumber Company. A meeting was recently held in London, of the 6 per cent. first mortgage bond holders of the Canadian Pacific Lumber Company, Limited, Vancouver, B.C., at which a resolution was passed to release the company from the payment of any moneys payable under the trust deed of April 1st, 1914. The company met with financial difficulty on account of the delay of the Exchequer Court in giving a decision regarding compensation for the expropriation of its property in Vancouver for wharf accommodation. Recent reports were to the effect that a settlement of this matter was expected in the near future.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1017. **Pit wood.**—A Glasgow house, able to handle cargoes, is anxious to hear from persons in a position to offer pit wood suitable for this market. Prompt action needed.

1021 **Birch poles or props.**—Enquiry is received from Bristol for Birch poles or props of the following dimensions: Length, 6 ft., 6½ ft., 7 ft., 7½ ft. Diameter, at smaller end, 3 in., 3½ in., 4 in., 4½ in., applying to all lengths.

1022. **Match boxes, match wood.**—A Scotch match manufacturer desires to purchase match boxes, or wood such as aspen or pine, suitable for the manufacture of same; also, match wood splints, or wood suitable for manufacture.

1029. **Broom handles.**—A London firm of brush makers asks to be placed in communication with Canadian manufacturers of broom handles.

1031. **Handles and dowels.**—A London manufacturing company asks to be placed in correspondence with Canadian manufacturers of handles and dowels.

1034. **Veneer.**—A London firm desires quotations and samples from Canadian manufacturers of three-ply birch wood or equal boards; 13⅛ in. x 10⅛ in. x 3-16 in. thick, delivery to be made in logs of 5, 10 and 20 thousand.

Blair & Rolland

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Main 5063

Montreal

Can supply a mixed car of any quantity of the following:—

Merchantable

Red Pine or Spruce

1914 Cut—Dressed or Rough

1 x 4" x 10/13
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6
7
8
2 x 4"
5
6
7—8—9—10
3 x 4" up x 10/13

5/6th QUALITY

3 x 3 x 10/13
3 x 4 up "

5th QUALITY

1 x 4" up x 10/13
2 x 3
4
6
8
5/7
9" up 10"

6th QUALITY

2 x 4 up x 10/13
Lath—Mill Run Pine
" " Spruce
4 x 1½ x ⅜"—50 pieces per package.

Buy less and oftener, thus obviate the necessity of overstocking to get your requirements.

Shipments received promptly at low rate of freight.

Thos. Mackarell & Company

Red Pine
White Pine
Spruce

Wholesale Only

Offices:—

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Can. H. W. Johns-Manville Co., Ltd.

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Hoyt Metal Company
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BAND MILLS
Berlin Machine Works
Hamilton Company, William
Waterous Engine Works

BELT CEMENT
Graton & Knight Mfg. Company.

BELT DRESSING
Dixon Crucible Co., Joseph
Graton & Knight Mfg. Company.

BELTING
Canadian Consolidated Rubber Co.
Canadian Fairbanks-Morse Company
Can. H. W. Johns-Manville Co., Ltd.
Dominion Belting Company
Federal Engineering Company
Goodhue & Company, J. L.
Graton & Knight Mfg. Company
Gutta Percha & Rubber Co.
McLaren Belting Company, J. C.
Reddaway & Co., F. (Camel Hair)
Smith, Nathan

BLOWERS
Invincible Blow Pipe Company
Sheldons Limited
Sturtevant Company, B. F.
Toronto Blower Company

BOILERS
Inglis Company, John
Jenckes Machine Company
Leonard & Sons, E.

BONDS
Ontario Bond Corporation

BOX MACHINERY
Canadian Linderman Co.
Mereen-Johnson Machinery Co.
Morgan Machine Company

CALKS
Steel Company of Canada

CAMP SUPPLIES
Borbridge, S. & H.
Clarke & Company, A. R.
Eckardt & Co., H. P.
Hall, Limited, Adam
Johnson, A. H.
Lamontagne, Limited
Morin & Company, Dr. Ed.
Palmer Medical Company
Smart-Woods Limited
Turner & Sons, J J.
Young, W. F.

CANOES
Dixon, F. M.

CANT HOOKS
Argall Bros.
Pink Company, Thomas

CEDAR
Canadian Western Lumber Company
Thurston-Flavelle Lumber Company

CHAINS
Argall Bros
Coghlin Company, B. J.
Laughlin Company, Thos.
McKinnon Chain Company
Morris Crane & Hoist Co., Herbert
Pink & Company, Thos.
Standard Chain Company
Woodhouse Chain Company

CRANES & DERRICKS
Morris Crane & Hoist Company

CUTTER HEADS
Shimer & Sons, Samuel J.

CYPRESS
Harris Lumber Company, Frank H.
Louisiana Red Cypress Company
Wilson Lumber Company
Wilson Lumber Company, Inc.
Wistar, Underhill & Nixon

DOORS
Batts Limited
Benson & Bray Limited
Canadian Western Lumber Co.
Haeberle Lumber Company
Heaps & Company
Rat Portage Lumber Company
Rimouski Lumber Company
Tessier, Alphonse

DOUGLAS FIR
Auger & Son
Cameron & Company
Canadian Western Lumber Company
Mason, Gordon & Company
Timberland Lumber Company
Timms, Phillips & Company

DRY KILNS
Grand Rapids Veneer Works
Sheldons, Limited

DUST COLLECTORS
Sheldons Limited
Toronto Blower Company

EMERY GRINDERS
Carborundum Company

ENGINES
Jenckes Machine Company
Leonard & Sons, E.
Waterous Engine Company

EXHAUST FANS
Sheldons Limited

EXHAUST SYSTEMS
Reed & Co., Geo. W.
Sheldons Limited
Toronto Blower Company

FILES
Disston & Sons, Henry
Nicholson File Company
Simonds Canada Saw Co.

FURNACE FEEDERS
Toronto Blower Company

HARDWOODS
Anderson Lumber Company, C. G.
Caflisch Bros.
Cameron & Company
Fassett Lumber Company
Gillespie James
Harris Lumber Co., Frank H.
Heyser Lumber Company, W. E
Hocken Lumber Company
Hoffman Bros. Company
Newman, John P.
Partington Pulp & Paper Co., Ed.
Rat Portage Lumber Company
Rimouski Industrial Company
Snowball Company, J. B.
Spencer, C. A.
Stearns Salt & Lumber Company
Webster & Bro., James

HARDWOOD FLOORING
Canada Wood Specialty Company
Siemon Bros.
Wilson Bros.

HEMLOCK
Anderson Lumber Company, C. G.
Bartram Bros.
Cameron & Company
Canada Lumber Sales Company
Diver, John M
Elgie & Jarvis Lumber Company
Fesserton Timber Company
Graves, Bigwood & Company
Haeberle Lumber Company
Hocken Lumber Company
McGibbon Lumber Company
Mason, Gordon & Company
Partington Pulp & Paper Co., E.
Quincy-Adams Lumber Company
Spears & Lauder
Spencer, C. A.
Snowball Company, J. B.
The Long Lumber Co.

HOISTS
Morris Crane & Hoist Company

HORSES
Jacobs, J. W.
Union Stock Yards Company

HOSE
Canadian Consolidated Rubber Co.
Can. H. W. Johns-Manville Co., Ltd.
Gutta Percha & Rubber Company
Reddaway & Company, F.

HARDWOOD VENEER DOORS
Wilson Bros.

INTERIOR FINISH
Wilson Bros.

KNIVES
Disston & Sons, Henry
Galt Knife Works
Peter Hay Knife Company
Simonds Canada Saw Company

KNIFE GRINDERS
Canada Machinery Corporation
Rogers & Company, Samuel C.

LATH
Austin & Nicholson
Bartram Bros.
Beck Mfg. Company, C.
Christy-Moir Company
Fraser Limited
Fraser-Bryson Lumber Company
Georgian Bay Lumber Company
Harris Tie & Timber Company
Graves, Bigwood & Company
McGibbon Lumber Company
New Ontario Colonization Company
Partington Pulp & Paper Co., Ltd.
Rat Portage Lumber Company
River Ouelle Pulp & Paper Co.
Spencer, C. A.
Victoria Harbor Lumber Co.

LAUNCHES
Adams Launch & Engine Company

LOCOMOTIVES
Canadian Locomotive Company
Climax Mfg. Company
Heisler Locomotive Works
Montreal Locomotive Works
Sessenwein Bros.

LOGGING & MACHINERY EQUIPMENT
Clyde Iron Works
Gerlach Company, Peter
Russell Brothers
Rutherford & Sons, Wm.
Ryther & Pringle Company

LUMBER
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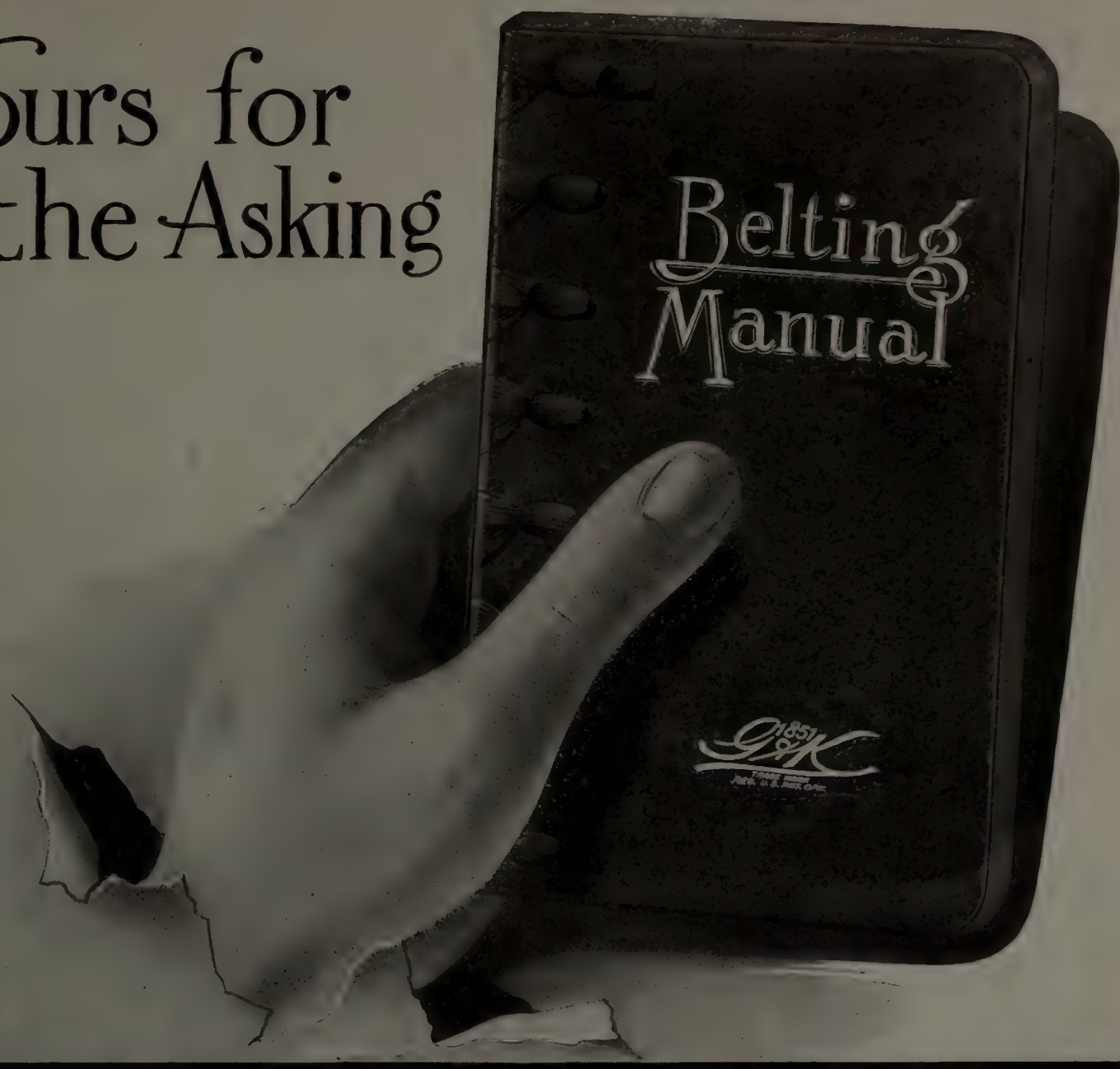

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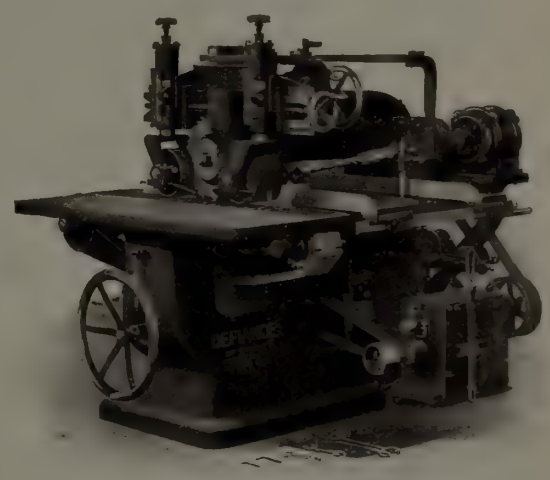

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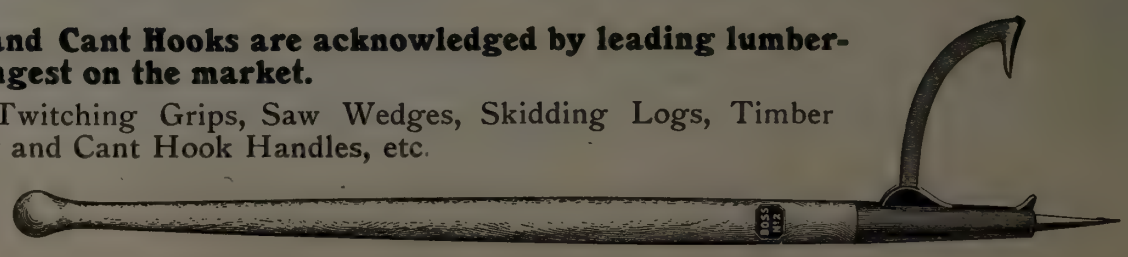

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2-in. No. 2 cuts and better	47 00	49 00
4/4 No. 2 and 3 cuts		31 00
5/4 and 6/4 No. 2 and 3 cuts		37 00
8/4 No. 2 and 3 cuts		38 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	31 00	32 00
1 x 12 common and dressing	32 00	34 00
1 x 10 and 12 mill cull stocks		23 00
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5/4 and 6/4 x 4 m.r., m.c. out		27 00
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5/4 and 6/4 x 6 m.r., m.c. out		27 00
5/4 and 6/4 x 8 m.r., m.c. out		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out	32 00	34 00
2 x 10 common		26 00
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common		27 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts		22 00
1-in. mill run Norway		22 00
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Dimension Timber up to 32 feet: 8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	32 50
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6x14, 8x14, 12x18, 18x20, up to 32 ft.	33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	34 00
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White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
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2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
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1-in. x 7-in. and up	40 00	42 00
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2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:		
1" x 4" and up, 6'-11'	17 50	18 00
1"x3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	60	65
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	75
By the dram, according to average and quality, 30 to 35 feet.	50	60

Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00
1¼ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn

1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00

No. 3 Barn

1 inch	21 00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00

Mill Culls

Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions	
2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards	
4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring	
4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished	
4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding	
6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath	
No. 1 Cedar, Pine, Spruce	5 00
No. 2 Cedar, Pine, Spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft. 1 4and 16 ft.
3 x 6 and 3 x 8	21 00 21 00
3 x 10	23 00 22 00
3 x 12	24 00 23 00
4 x 4 to 6 x 8	21 50 21 50
4 x 10 to 10 x 10	23 50 22 50
8 x 8	21 50 21 50
6 x 14 up to 32 ft.	29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8 in., 10 in. and 12 in. shiplap 10/16 ft.	23 50
B. C. Fir 6 in. shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25
No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

LATH

No. 1 Mixed W. & R. Pine	**$4 25**
No. 1 B. C. Fir	**3 65**

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine Common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00

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28 "Service" Branches Throughout Canada

Canadian Consolidated Rubber Co., Limited

Montreal, P. Q.

"BUSINESS AS USUAL"

We have not, owing to the War, shut down any of our plants, discharged any of our workmen, reduced their hours of labor, or cut their rate of pay.

We are doing ***"Business as Usual."***

We intend to continue this policy to the extent of our ability, and, to that end, suggest that you confine your purchases, during the war and thereafter, as largely as possible to goods ***"Made in Canada."***

When in the market for Rubber Goods of any description — Belting, Hose, Packing, Tires or anything else—write or wire our nearest branch for prices and information.

It is our desire to serve you.

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THE money wasted in keeping a stretching belt taut amounts to a surprising figure. If you use "Goodhue Belts" in your mill or factory you can save most of this money because "Goodhue Belts" stretch less by 15 to 25 per cent than any other belt. They are made from skillfully selected hides with the stretch taken out of each section before it is made up into the belt.
According to the conditions under which the belt is to run, we recommend "Extra," "Standard" or "Acme Waterproof" belts.

Send for further particulars and prices.

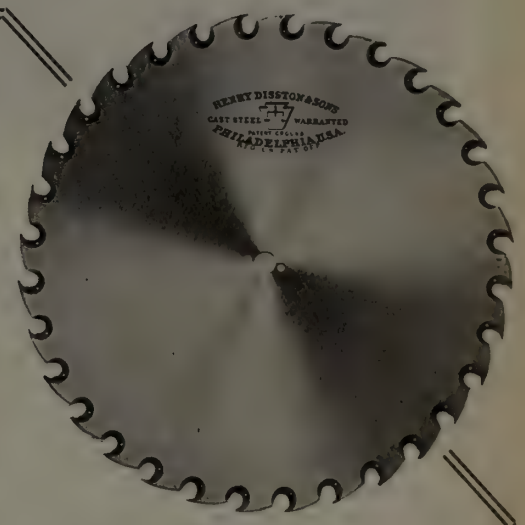
GOODHUE BELTS

J.L. GOODHUE & CO. Limited.

DANVILLE — QUEBEC.

More work with less power

with a saw that won't clog, that requires no gumming, little hammering, and that always retains its original size—that's what you get with the



DISSTON Inserted Tooth Saw

If you hit a nail and break a tooth—insert a new one. If your saw strikes heavy metal, you can insert a whole new set of teeth in a few minutes. No time wasted in gumming and your **saw is still the same size.** This means economy in first cost and increased saw life. You don't have to buy a saw several sizes **larger** than your requirements demand.

A file keeps it in order. Pointed and sharpened quickly and easily. Cuts all kinds of timber, frozen or otherwise.

Disston Points

The Disston Chisel Point Tooth is drop forged and pressed (not milled). It is strongly reinforced with a shoulder which affords permanent support against the saw plate. The Disston Point is secured firmly and permanently by a spring holder either slotted or solid. The large and increasing demand for Disston Points is convincing testimony of their quality and satisfactory service.

Write today for full information and our new book "Saw Appreciation"

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TORONTO, CANADA **Branch at Vancouver, B.C.**

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	30 - 32	20 - 22	14 - 16
5/4 to 8/4	33 - 35	22 - 24	14 - 15
10/4 to 16/4	37 - 39	27 - 29	19 - 21

RED BIRCH

4/4	41 - 43	27 - 29	15 - 17
5/4 to 8/4	43 - 45	29 - 31	17 - 19

SAP BIRCH

4/4	35 - 37	23 - 25	17 - 19
5/4 and up	37 - 39	25 - 27	17 - 19

SOFT ELM

4/4	35 - 37	24 - 26	15 - 17
5, 6 & 8/4	37 - 39	26 - 28	17 - 19

BASSWOOD

4/4	33 - 35	24 - 26	16 - 18
Thicker	35 - 37	26 - 29	19 - 20

PLAIN OAK

4/4	51 - 53	32 - 34	20 - 22
5/4 to 8/4	53 - 55	34 - 36	22 - 24

ASH, WHITE AND BROWN

4/4	45 - 47	27 - 29	18 - 20
5/4 to 8/4	52 - 54	29 - 31	19 - 21
10/4 and up	61 - 63	41 - 43	21 - 23

BOSTON, MASS.

White pine uppers, 1 to 2 in.	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards		25 00
Spruce, 10 in. dimension	25 00	27 00
Spruce 12 in. dimension	26 50	28 00
Spruce, 9 in.		24 50
Spruce, 8 in. and under dimen.	23 50	24 00
10 and 12 in. random lengths, 10 ft. and up	25 00	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	21 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00	22 50
5-inch and up merchantable boards, 8 ft. and up, p 1s		22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled		22 50
1½-in. spruce laths	4 15	4 25
1½-in. spruce laths	3 75	3 80

New Brunswick Cedar Shingles

Extras	3 50
Clears	2 90
Second clears	2 75
Clear whites	2 45
Extra 1s (Clear whites out)	1 50
Extra 1s (Clear whites in)	1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40 3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.	4 25
Red Clear Perfection, 5 butts to 2¾	4 80
Washington 16-in. 5 butts to 2-in. extra red clear	3 35

Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

"To be, or not to be, that is the question.
Whether 'tis nobler in the mind
To suffer the slings and arrows
Of outrageous fortune,
Or to take arms against a sea of troubles." —Hamlet.

Hamlet the Prince of Denmark is a character which

every budding actor aspires to play. The late Sir Henry Irving certainly inspired many to study the works of Shakespeare and those who were privileged to hear him in Hamlet's famous soliloquy are not likely to forget it. Most of us have been in a state of doubt on many occasions and said to ourselves: The question is:

TO BE, or not TO BE

We can serve the interests of our customers who use Babbit Metals and recommend without any hesitation.

Harris Heavy Pressure

The Babbitt Metal Without a Fault

Engineers using H. H. P. avoid a sea of troubles.
They know IT WILL GIVE EXCELLENT SERVICE

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Branch Factories, Montreal, Winnipeg

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Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.

Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

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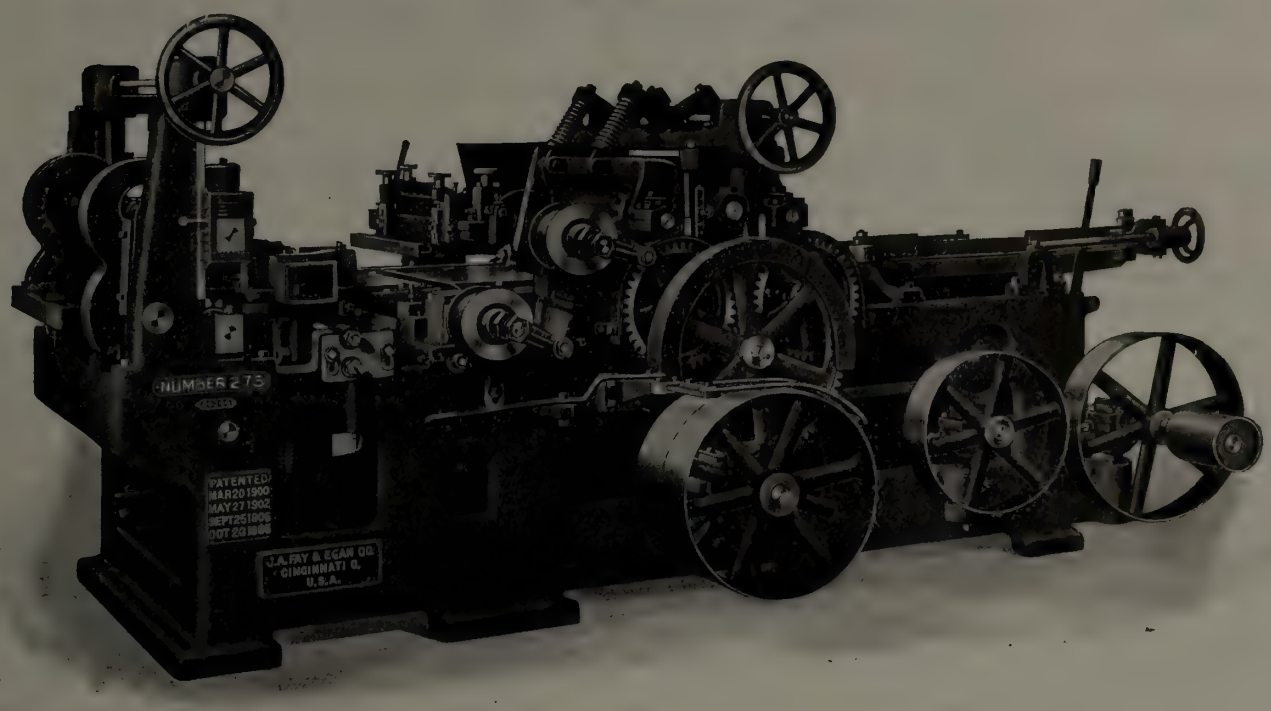
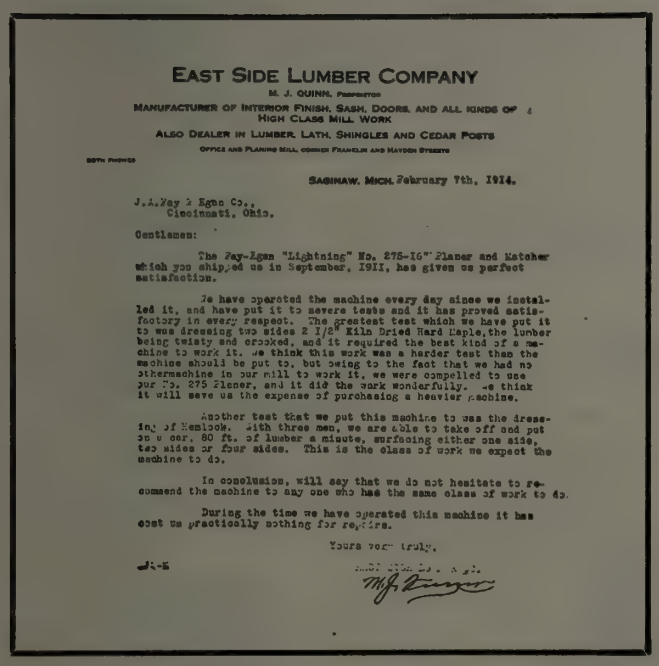
Winnipeg: Bissett & Loucks.
Vancouver: John Burns, 329 Railway St.

More Proof of the value of this Medium Weight and Medium Priced Matcher FAY-EGAN "LIGHTNING" No. 275



Satisfied Owners everywhere are telling us how the 275 is doing all that we claimed for it, even more—it will do the same for you.



EAST SIDE LUMBER COMPANY

M. J. QUINN, Proprietor

MANUFACTURER OF INTERIOR FINISH, SASH, DOORS, AND ALL KINDS OF HIGH CLASS MILL WORK

ALSO DEALER IN LUMBER, LATH, SHINGLES AND CEDAR POSTS

OFFICE AND PLANING MILL, CORNER FRANKLIN AND HAYDEN STREETS

BOTH PHONES

SAGINAW, MICH. February 7th, 1914.

J.A.Fay & Egan Co.,
Cincinnati, Ohio.

Gentlemen:

The Fay-Egan "Lightning" No. 275-16" Planer and Matcher which you shipped us in September, 1911, has given us perfect satisfaction.

We have operated the machine every day since we installed it, and have put it to severe tests and it has proved satisfactory in every respect. The greatest test which we have put it to was dressing two sides 2 1/2" Kiln Dried Hard Maple, the lumber being twisty and crooked, and it required the best kind of a machine to work it. We think this work was a harder test than the machine should be put to, but owing to the fact that we had no other machine in our mill to work it, we were compelled to use our No. 275 Planer, and it did the work wonderfully. We think it will save us the expense of purchasing a heavier machine.

Another test that we put this machine to was the dressing of Hemlock. With three men, we are able to take off and put on over 80 ft. of lumber a minute, surfacing either one side, two sides or four sides. This is the class of work we expect the machine to do.

In conclusion, will say that we do not hesitate to recommend the machine to any one who has the same class of work to do.

During the time we have operated this machine it has cost us practically nothing for repairs.

Yours very truly,

JJ-S

M. J. Quinn

In fact, every one of the 275 we have put out has more than satisfied the purchaser in both quantity and quality of production.

The letter, herewith, shows how the East Side Lumber Company use their 275 and what they think of it. We have others from all parts of the country proving it to be the Greatest General Purpose Planer and Matcher on the market.

The 275 is just the machine for your mill or factory It is medium in price and weight, low operating cost, a fine Matcher and Floorer, a great surfacer, as well as an Inside Moulder.

Accessibility to all parts is a feature of the 275, a necessity in the general purpose machine.

If you need a General Purpose Machine why not get the Greatest—a 275? Write today.

J. A. FAY & EGAN Co.

465-485 W. Front St. **Cincinnati, O., U. S. A.**

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS HEAD OFFICE **The Rat Portage Lumber Co., Limited - Winnipeg, Man.**

D. C. CAMERON, President and General Manager.

Your Lumber Horse Needs

A talk with the Lumberman of Canada on the modern and sanitary system we have installed to serve your requirements.

FINANCIAL RESPONSIBILITY.—We are in a position this season to supply the lumber trade with the finest heavy horses suitable for camp work. We have shippers in the very best heavy horse district in Western Ontario, who make personal selections and take only the best. Every horse we ship out is guaranteed to be just as represented by us as to age, soundness, weight and quality—there is more than two million dollars behind this guarantee. These horses can be delivered off the incoming cars and transhipped in an hour from our yards.

SERVICE.—Our barn accommodation is up-to-date in every particular and has stabling accommodation for 500 horses. A track is also maintained for exercising horses while on the company's premises.

SANITATION.—Believing that prevention is better than cure, and to give the very best service possible we have this year employed a veterinary surgeon under salary. A daily and most thorough inspection is made by him of the entire barns and in this way the slightest indisposition is noted and the animal suffering immediately removed to the hospital on the grounds. "Safety first" is our motto in this respect.

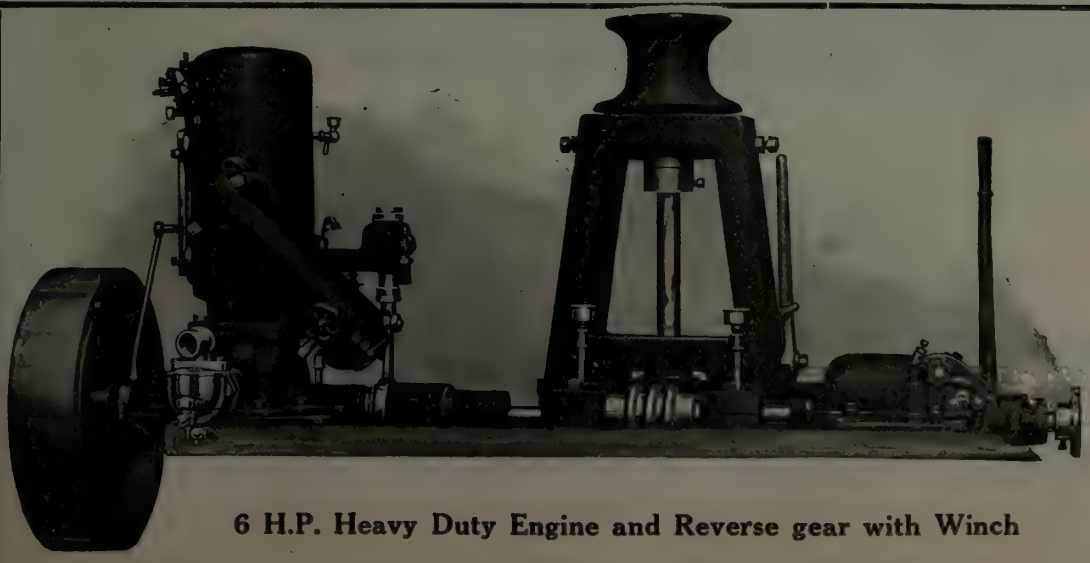
TRANSPORTATION.—Our premises being directly on the lines of the C. P. R., G. T. R. and C. N. R., our rail facilities are such that we are in a position to ship on an hour's notice, and loading and unloading chutes are located right at the barn doors.

We gladly invite inspection of our entire system. Come and let us show you the most modern and sanitary system in Canada.

Union Stock Yards of Toronto, Ltd.

Horse Department: **Wm. Read, Sales Manager**

FULL VALUE FOR YOUR MONEY



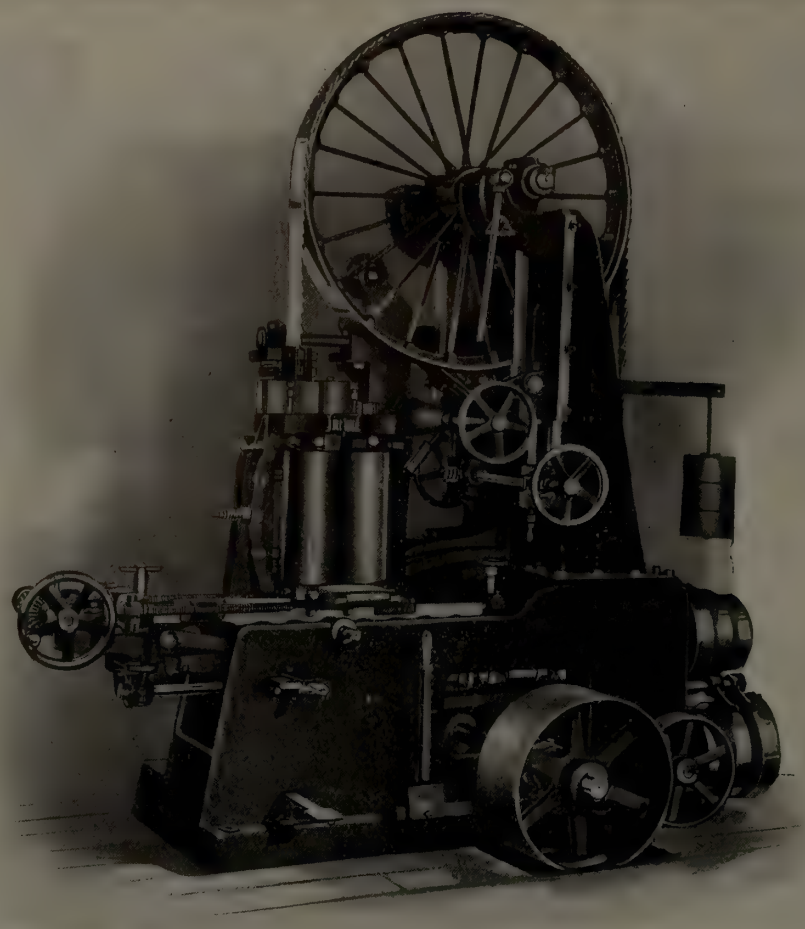
6 H.P. Heavy Duty Engine and Reverse gear with Winch

River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25 ft. punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 h.p.

Adams Launch & Engine Co.

Penetang, Ont.



54″ Vertical Re-Saw

This is an exceptionally rigid machine and will give high grade results at a fast feed under the hardest conditions of continuous service.

The upper band wheel rests directly on the straining device making a very sensitive tension; therefore a very thin saw can be used.

We also manufacture Horizontal Re-saws and will gladly mail catalogue upon request.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.

INDUSTRIAL LOCOMOTIVES

The designs of our small locomotives are the result of wide experience.

All details are accurately finished to standard gauges and are absolutely interchangeable on all locomotives of the same class and size.

This cuts out long delays when parts wear out, as parts liable to wear can be kept on hand or shipped promptly from our works.

MONTREAL LOCOMOTIVE WORKS, LIMITED

DOMINION EXPRESS BUILDING, MONTREAL. CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog "H."**

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

We Guarantee Every Belt We Sell

provided the requirements of the work are submitted to us when the belt is purchased.

It takes YEARS to find out what kinds of belting are best fitted for different kinds of work. We have spent the time and money to find this out.

Why Not Use Our Service? IT IS FREE.

We carry in stock FIVE different kinds of belting each designed for its own kind of work.

Write for our Belting book "The Main Drive."

Federal Engineering Co., Limited

Toronto - Montreal

This engine is 13½ ins. x 18 ins. and weighs 35 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run. Oil or coal burning.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

Grey Iron Castings—any size or shape—ordinary or intricate—made promptly. New foundry, splendidly equipped. We would be pleased to quote on castings—singly or by contract. We also make drop forgings of all descriptions.

MAY WE SEND YOU SPECIFICATIONS?

Canadian Locomotive Company, Limited, Kingston, Ont.

Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

The Mark THE E. LONG MANUFACTURING Co. SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

A Boss Dog Carriage

For Quick Work in Small Logs

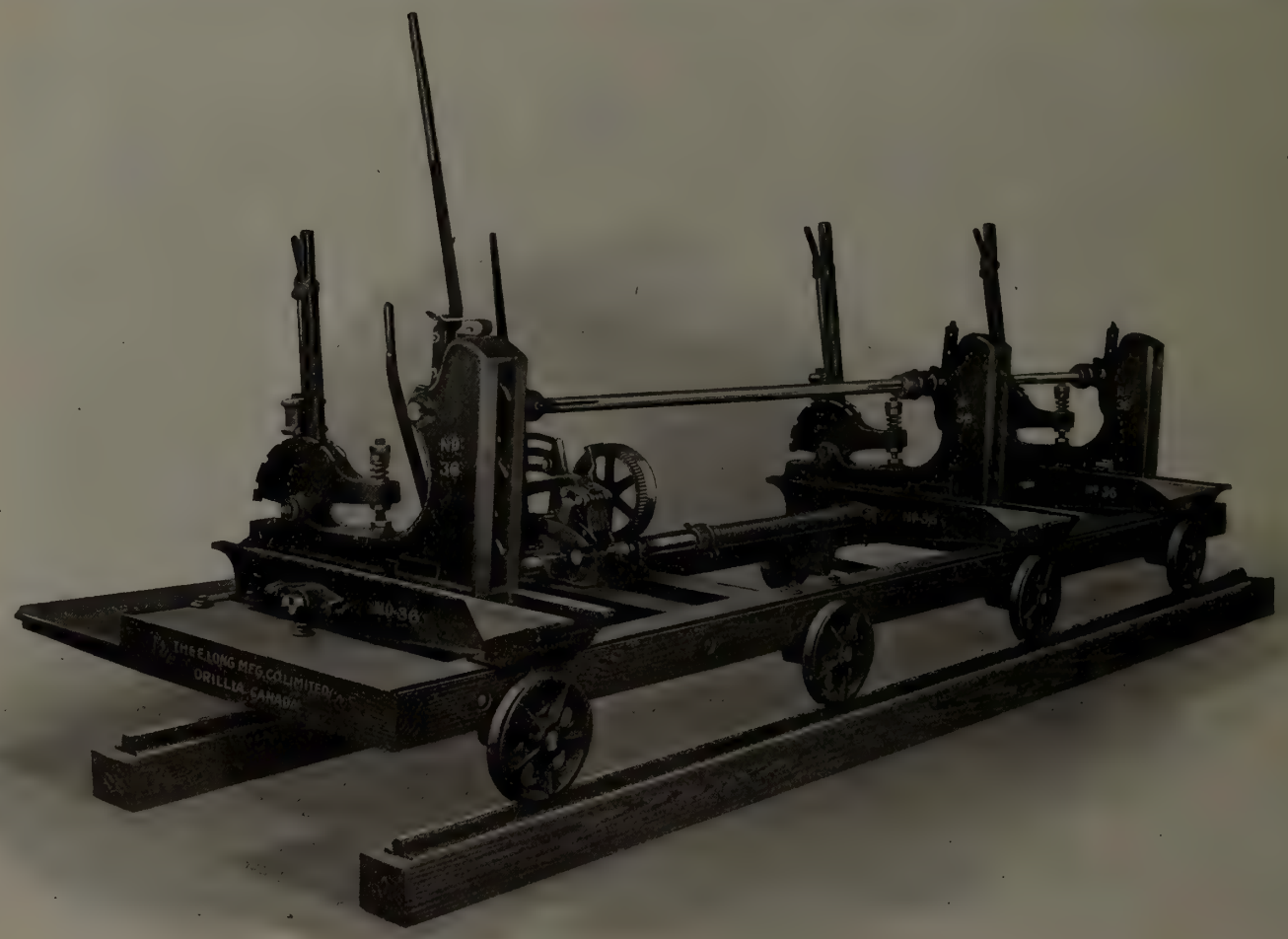
A carriage designed to stand abuse, yet light enough to be speedy.

Catalogue No. 100, shows a carriage for every purpose. Have you got it?

The E. Long Mfg. Co., Limited, Orillia, Canada

AGENCIES:

Vancouver—Robt. Hamilton & Co.
Calgary and Edmonton—Gorman, Clancey & Grindley, Ltd.
Winnipeg—The Stuart Machinery Co., Ltd.
Montreal—Williams & Wilson, Ltd.



No. 36 Standard Carriage

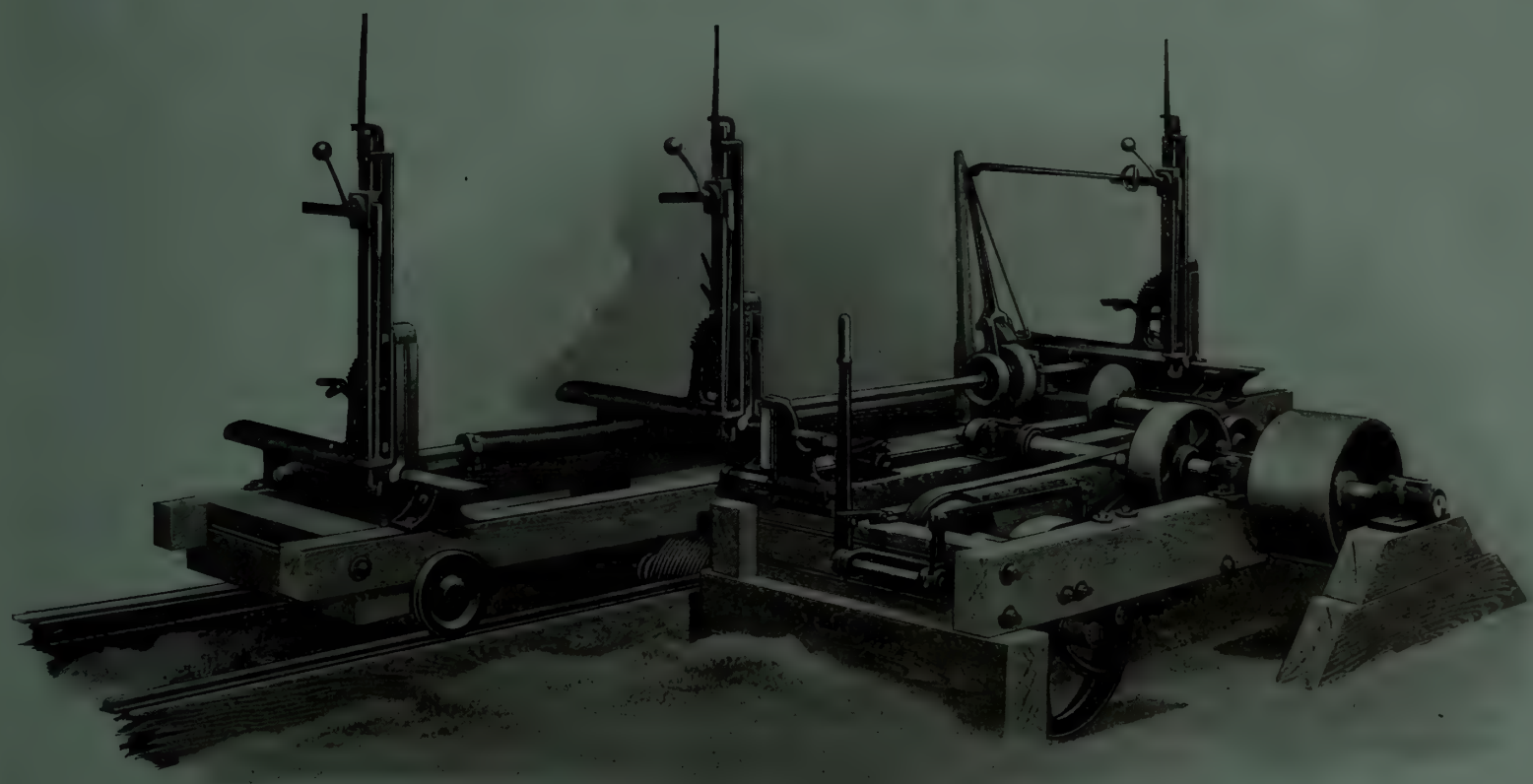
THE Upper Fraser River Lumber Company freighted a Portable Outfit like this seventy miles over rough country to cut material for their big mill at Dome Creek, B.C.

Cutting on an average of over 12,000 ft. per day, they have turned out 200,000 ft. for their own use, have sold $7,000.00 worth of lumber, and have produced over 2,000 ties and 100,000 ft. of lumber still in stock. All this lumber came off their mill site and was cut on the

WATEROUS PORTABLE SAWMILL

HOW IT IS BUILT

Track—Steel V and Flat, 55 ft. long.
Carriage—16 ft. 11 ins. long; capable of taking 32 ft. logs.
3 Headblocks—with steel logseat and taper set knee.
Steel Boss Dogs.
Ratchet Setworks, with steel ratchet wheel, and chilled steel pawls.
Cable Feed, using large sheave wheels and large drum for cable to roll on.
Saw Mandrel—2⅞ ins. x 6 ft. 9 ins. long.
Driving Pulley—20 in. diameter, 12 in. face.
Friction Feed Works—5 in. Frictions, unsurpassed for flexibility and strength.
Improved Timber Gauge.
Waterous Safety Saw Guide.



We back this mill for Strength, Efficiency and Simplicity, against any Portable Outfit being manufactured. Hundreds are in use in every part of Canada where timber grows. The specifications tell the story. Bulletin on request.

The Waterous Engine Works Co., Limited BRANTFORD, CANADA

VANCOUVER, B.C. WINNIPEG, MAN.

$5,000,000.00
worth of mixed metal sold annually.

"FROST KING" METAL

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb.**, Fort William and East; West of Fort William **35c per lb.**, delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

"Maple Leaf" Brand

Stitched Cotton Duck Belting

A trial Belt will convince you. Write for prices and samples.

Excels all others in economy, strength, efficiency and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply **"Maple Leaf"** belt, a light double leather, and a 6-ply rubber belt, showed that our **"Maple Leaf"** Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

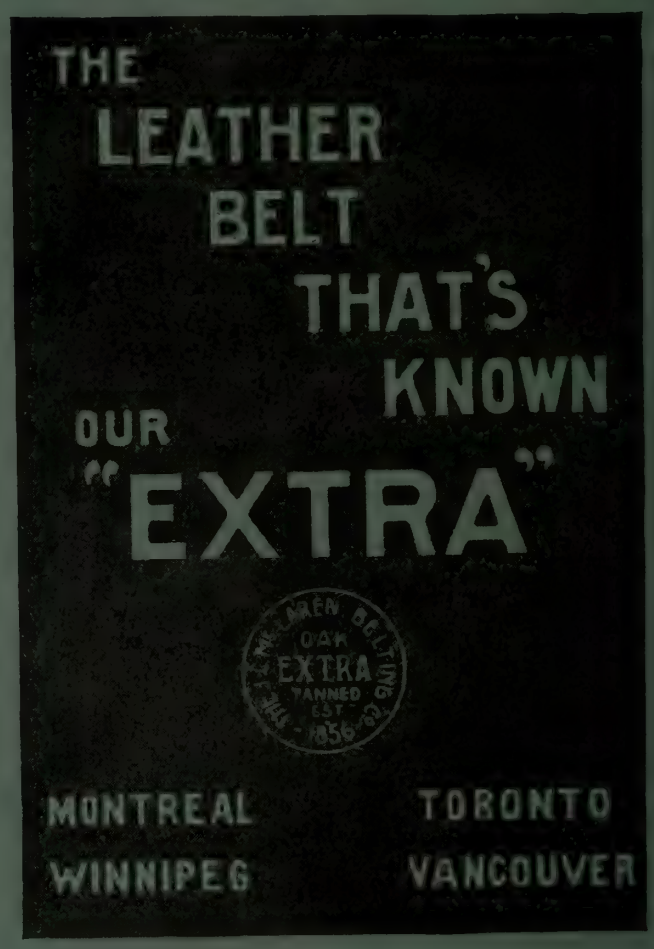
"Maple Leaf" Main Drive Belts
Are the Best on the Market.

"Maple Leaf" Belt Dressing is the best for all kinds of belts.

Dominion Belting Co., Limited

HAMILTON - ONTARIO

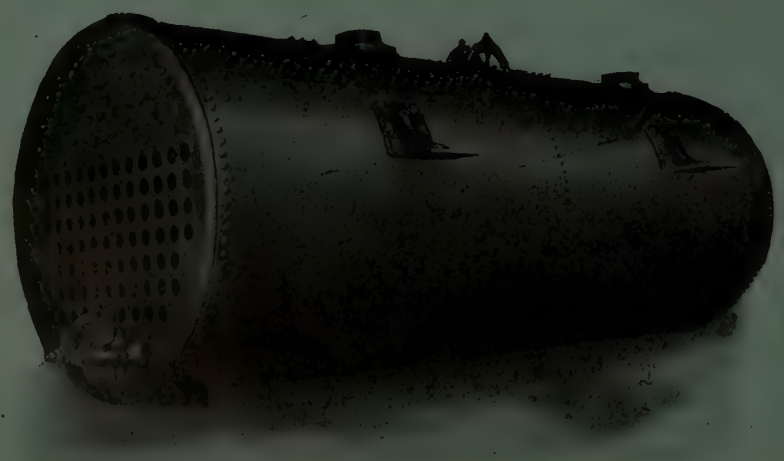
Branch: Montreal—Office 51 Duluth Building



The J. C. McLaren Belting Co.

Limited

General Mill Supplies **MONTREAL**



BOILERS

"INGLIS" boilers are the product of over 50 years' experience and study combined with the most modern equipment for boiler making.

"INGLIS" boilers are made in every type and all sizes.

Let us quote on your requirements.

The John Inglis Co., Ltd.

Engineers and Boilermakers

14 Strachan Ave. Toronto, Canada

Montreal Representative—A. Angstrom, 509 Canadian Express Building

Vol. 34 Toronto, November 15, 1914 No. 22

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

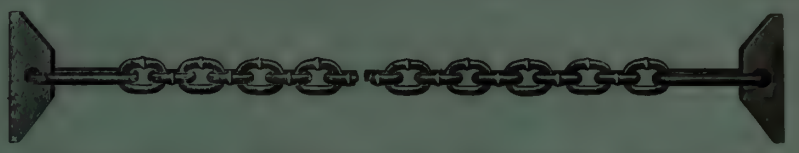
Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.



Electric-Welded Boom Chain

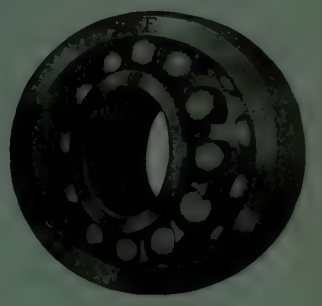
25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Save 20 to 40 per cent of your Transmission Losses



Install U. G. Hangers (made in Can.) and Skelko Ball Bearings (made in Eng.)

They require no rearrangement of a plant already installed nor departure from well established mill practice.

They insure the most sturdy, highly efficient and economical method of line shaft power distribution.

The Canadian Fairbanks-Morse Co., Limited

St. John, Montreal, Toronto, Winnipeg, Saskatoon, Calgary, Vancouver, Victoria

F. REDDAWAY & COMPANY

Sole Makers of MONTREAL

"CAMEL HAIR" "CAMEL" BRAND BELTING — TRADE MARK REG.

STOCKS 2" TO 24" WIDE

The Belt that will last longer, stretch less, and transmit more power than any other belt.

Stocks carried by The A. R. Williams Machinery Co., Limited,
TORONTO WINNIPEG

Travelling Cranes for Every Service

Steam and Power Pumping Machinery

"MADE IN CANADA"

The Smart-Turner Machine Company, Limited

Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

One Setter Can Work All Day With This Machine

With a steam set works you do not have to change setters twice or three times, a day. One man can do all this work, because the hard work is done by steam.

And you get better lumber, because the travel of the piston is as exact as in a steam engine, so that a steam set works of itself simply cannot cut uneven lumber.

Further, you get more lumber, because it will set up to four inches as quickly as any other machine will set two inches.

Let us send you further particulars.

William Hamilton Co., Limited

Peterborough, Ontario

View of logs in Sturgeon River

White and Norway Pine Dimension Timber

6 x 6—12/16′,	25,000′	10 x 10—12/16′,	65,000′
6 x 8—12/16′,	50,000′	10 x 10—20/24′,	52,000′
8 x 8—12/16′,	25,000′	10 x 12—16′,	45,000′
8 x 8—20/24′,	38,000′	12 x 12—11/14′,	34,000′
8 x 10—12/16′,	22,000′	12 x 12—16′,	105,000′
8 x 10—18′,	16,000′	12 x 12—20/28′,	40,000′
8 x 10—20/28′,	13,000′	12 x 12—20/28′,	28,000′
8 x 12—16′,	5,000′		

When you want the best in WHITE and NORWAY PINE, write or wire us for prices.

Dressing Done on Short Notice.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

Read & White

Wholesale Lumber

Spruce, Hemlock
and Hardwoods

Hemlock & B.C. Timbers

818 New Birks Bldg., MONTREAL

Everything in Lumber

Wholesale and Retail

Dressed Spruce a Specialty

Write or wire us for your requirements

The McLennan Lumber Co.
Limited
Montreal, Canada

Winter Sawed Hardwoods Ready for Shipment

4/4 Log run Maple	350,000 ft.	6/4 No. 1 C.&B. Maple	60,000 ft.
5/4 No. 1 C.&B. "	40,000 ft.	8/4 No. 1 C.&B. "	200,000 ft.
4/4 Log run Beech	250,000 ft.		
6/4 "	15,000 ft.		

We have recently installed a complete planing mill and are now in a position to do dressing of any kind on short notice.

Spruce and Hemlock Timbers a Specialty

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

Spruce
White Pine
Banksian Pine
Birch

Get our stock list and prices.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, **Portland, Maine**

CULLS

One Million 1 x 10 & 12 No. 1 Mill Culls
Half " 1 x 4 & up " "
" " 1 x 10 & 12 No. 2 " "
" " 1 x 4 & up No. 2 " "

The Long Lumber Company
Hamilton, Ont.

Are You Being Held Up?

Hostile times cause panic, prices go aviating and the public pay what is asked.

Buy Hocken's

and you will get a square deal--good stock and a prompt shipment--write us.

Hocken Lumber Company, Limited
Otter Lake Station, Ont.

TRADE T MARK (REGISTERED)

DRY WHITE PINE

2 x 7	-	12/16
2 x 8	-	12/16
2 x 9	-	12/16
6/4 x 8	-	12/16
6/4 x 8/10	-	12/16

Watson & Todd, Ltd., Ottawa, Ont.

The
Harris Tie & Timber Co.
Ottawa - Canada
Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

The
Georgian Bay Lumber Co.
Limited
Waubaushene, Ontario

Manufacturers of High Grade
Lumber and Laths

Fraser Bryson Lumber Co., Ltd.
Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers
Mills at Deschenes, Que., near Ottawa

White Pine
Red Pine
Spruce
Lumber and Lath

Office, Castle Building 53 Queen St. Ottawa, Can.

JOHN GILLIES, President — DAVID GILLIES, Vice-President. — J. S. GILLIES, Sec.-Treas.

Established 1873

GILLIES BROS.
Limited

Mills and Head Office
BRAESIDE, ONT.

Manufacturers of
WHITE PINE
RED PINE
SPRUCE

New York City: Guy E. Robinson, 1123 Broadway

BARTRAM BROTHERS, LIMITED
OTTAWA, CANADA

SPRUCE, WHITE PINE AND RED PINE

We offer for immediate shipment dry Merchantable Quebec Spruce:

1¼ x 3 x 10/16′	13,687′	1 x 4 x 10/16′	278,560′
1¼ x 4 x "	92,735′	1 x 5 x "	163,915′
1¼ x 5 x "	17,094′	1 x 6 x "	61,218′
1¼ x 6 x "	14,093′	1 x 7 x "	17,080′
1¼ x 7 x "	3,369′	1 x 8 x "	6,000′
1¼ x 8/10 x"	5,180′	1 x 9/12 x"	1,500′
1¼ x 9 x "	65,000′		

N.B.—We have a large stock of Cedar Shingles, Spruce and Norway Pine Lath. We can ship matched and dressed stock and mixed carloads of lumber, lath and shingles or straight car lots as required.

BROMLEY

The Best There is
in
Red and White
PINE

Wm. H. Bromley
Pembroke, Ont.

BROMLEY

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Birks Building, VANCOUVER, B. C.

New Ontario Colonization Co.

LIMITED

Lands, Lumber, Lath and Pulpwood
Planing Mill Work

Lumber Yard, Jacksonboro, Ont.

We have the following lumber on hand ready for shipment as shown above, and for which we solicit your orders viz:

1 x 4 Merchantable Spruce.	1 x 12 Merchantable Spruce.
1 x 5 Merchantable Spruce.	4/4 and 8/4 Mill Run Tamarack.
1 x 6 Merchantable Spruce	4/4 Balsam.
1 x 7 Merchantable Spruce.	4/4 No. 2 and Better Whitewood
1 x 9 Merchantable Spruce.	8/4 No. 2 and Better Whitewood
1 x Merchantable Spruce.	4/4 Mill Run Poplar.

CLAY BELT LANDS FOR SALE, Located in Townships of Kendrey and Haggart, District of Temiskaming, Ontario.

Mills: JACKSONBORO, ONT.

Sales Office: New York Telephone Bldg. BUFFALO, N. Y.

Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is positively right, and prices will please

Timberland Lumber Co., Limited

Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.

Mills at Craigs on the B C.E R.
Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

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10 cars	1 x 8″	10 ft. and up
2 “	1 x 10″	“
50 “	1 x 7″ and up	“
10 “	1¼ x 7″ and up	“
10 “	1½ x 7″ and up	“
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5 “	3 x 6″ and up	“

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2 cars	2 x 6″	10 ft. and up

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10 cars	1 x 4″ and up	10 ft. and up

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10 cars	1 x 6″	10 ft. and up
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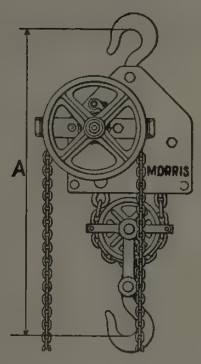

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1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 8-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

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1 Waterous double edger, 6 saws.

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1 Automatic Filing Machine for 12-in. D.C. band saws.

1 Automatic Grinding Machine for 8-in. S.C. band saws.

1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

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78 M 4/4-7 in. and wider No. 1 Common Basswood.
27 M 5/4-3 in. to 6 in. No. 1 Common Basswood.
32 M 4/4-7 in. and wider No. 2 Common Basswood.
62 M 5/8 No. 2 Common and Better Beech.
48 M 4/4 6 in. and wider 1s and 2s Beech.
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86 M 6/4 3 in. and wider No. 1 Common Beech.
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45 M 4/4 1s and 2s Soft Gray Elm.
90 M 4/4 No. 1 Common Soft Gray Elm.
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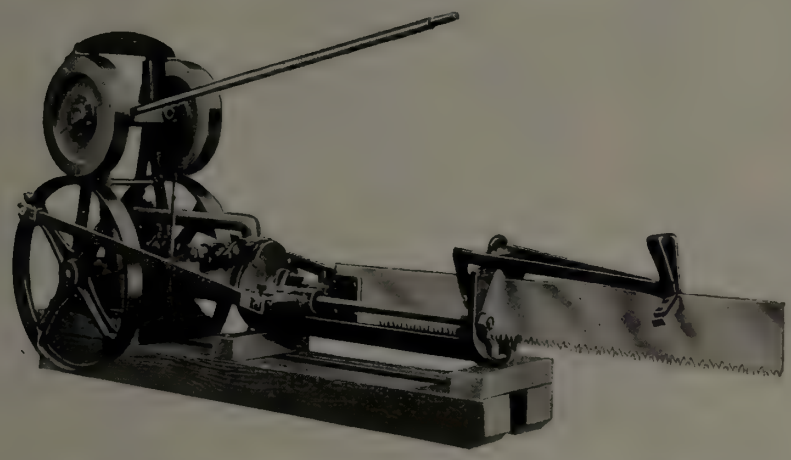

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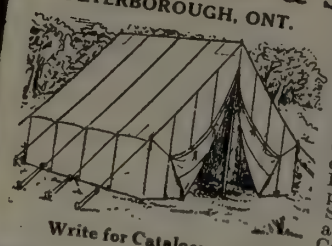

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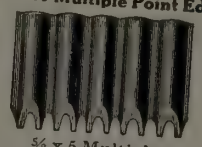

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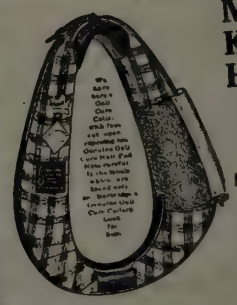

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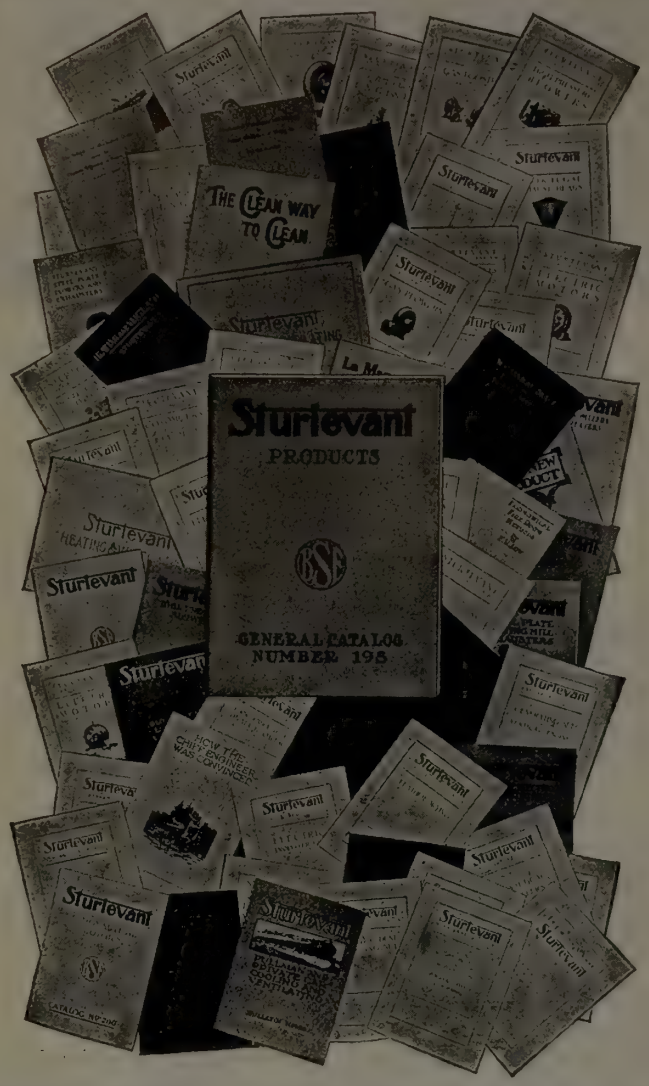

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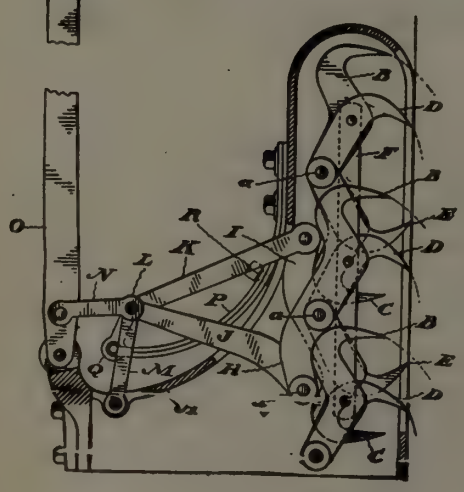

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

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Business Has Found Its Bearings

The attitude of the lumber salesman, and the lumberman in general, towards their fellows, illustrated by their conversations in company with others has been affected to quite an appreciable extent by the war situation and its industrial outcome. This change, slight as it may appear, is of interest and possibly of importance, and it indicates, in quite a remarkable manner, the actual state of affairs existing at present. In normal times the most noticeable feature of fellowship among the members of the lumber trade is their tendency to discuss almost anything but actual business. In fact when two salesmen of rival concerns cross one another's ways in ordinary times, shop talk is noticeably absent—with the exception of a few cases of men who make it their business to learn all they can about the other fellow's doings. There is no insinuation about this that reticence is a characteristic of the lumber salesman. Quite the contrary is the case. He is a good fellow to meet, sociable, entertaining and bright, in the vast majority of cases; but he does not often talk business with his direct competitors. Among the individuals in fact there has persisted still much of that old feeling which did so much to hamper industrial progress in old times—the feeling that one's business was sacred to himself, and above all not to be discussed with possible competitors.

Probably this feeling will pass away among even the greater number of individuals in the near future. Its end is being hastened by the widespread association movement among lumbermen which has made such progress of late, and the end is being quickened also by events which are occurring on the battle fields of Europe today; no less than in the fields of industrial competition.

An idea which has been mentioned by many lumbermen recently in conversation with the Canada Lumberman, is the fact that salesmen and others have a common meeting ground today for discussing trade conditions, which is working quietly toward establishing a slightly more trustful disposition among competitors. If it should bring about an increased confidence of this nature, it would at least be one pleasing development from the war. The mutual ground of discussion comes up in much the following manner: Two competitors meet and naturally talk about the war. Then they cannot refrain from going on to talk about trade conditions. The encouraging feature is that so many of them, having gone this far indicate to one another that they have accepted the gospel of good cheer, and are doing their own little best towards assisting in keeping up trade activity. In former times of industrial disturbance, much the opposite was the case. Men seemed to be predisposed to make statements that business was bad; they had a sort of feeling that they were doing something to be proud of when they expressed themselves so. They encouraged the continuance of poor trade conditions, instead of seeking to restrict them. Today we have in us all a conviction that Great Britain and her allies are unquestionably certain to compel Germany to give up its great dreams of conquest, and that thereafter there will be much better times for everyone; once the world has commenced to overcome the losses caused by the war. Having this confidence we cannot logically admit any other feeling in regard to business than that we have already experienced the worst, and conditions must improve. This belief has become so definitely developed among us all that one never hears any opposite opinion expressed. It is simply a question of how long we must wait, and as to the amount of preparedness which it is wise to undertake in the meantime.

This feeling has already done much to improve trade conditions. It has given us an industrial backbone which for a few weeks seemed to be wanting. It has set many of us looking about for new sources of trade, which have been found in a number of important cases. The condition in which we find ourselves today is so vastly improved as compared with that of the second week in August that it is impossible to make any comparison. We have found our bearings. We are full of national and industrial confidence as to the future, even though the difficulties of today are greater than any which we have experienced for many years.

The difference between the situation today and that which prevails during times of ordinary commercial and industrial depression is simply this, that in the latter case we frequently make our natural difficulties greater than they actually are by our determined habit of looking for and talking about depression. Today, although we have had great reason for feeling as we did in former times, we have adopted a practically national spirit of good cheer, and determination to make the best of the situation; confident in the ultimate success of our armies and in the gradual return of business prosperity. This is the really solid feature of the situation as it exists today, a feature which has already done much to save our industrial situation.

B. C.'s Foreign Lumber Trade

Soon after the outbreak of the war, business men in all parts of Canada commenced to talk about the great opportunities that would be presented for capturing the foreign trade of other nations and increasing Canada's importance as an exporting country. There was much generalizing at first, and very little specializing or going into details as to how it was to be done. Many of those who talked about these opportunities were up in the air when anyone asked them to explain how to find out just where new trade was to be developed and how to go after it. Since that time however, a great deal of quiet thinking has been done by many men who are in a position to get at the facts. As a practical contribution upon a definite line of industry and the opportunities which now lie before it, one of the best considerations of the situation that we have yet seen, is published elsewhere in this issue in the form of an article by Mr. Henry Pearce, of Victoria, B.C., dealing with the foreign lumber trade of British Columbia. Those who are in touch with the lumber trade of the Pacific Coast know that, although Canada formerly occupied an important place in this trade, United States manufacturers of late years have increased their foreign shipments of lumber greatly, while British Columbia's shipments have rapidly declined. The British Columbia Government recently took up the study of this situation and has worked actively and consistently upon it with a view to searching out its causes and discovering its

remedies. What Mr. Pearce has to say will put them more definitely upon the track than probably anything else which has come to their attention.

Briefly, the situation is very clearly illustrated by an instance mentioned in Mr. Pearce's article. Quite recently the Government of Australia commenced calling for tenders for lumber and timber—25,000,000 feet in all—for the new capitol buildings to be erected at Canbarra. The prevailing trade customs in connection with the shipment of lumber to Australia from tre Pacific Coast made it practically essential that these tenders should go through San Francisco firms of shippers and timber brokers, which meant a handicap of about 6 per cent. against Canadian lumber manufacturers. The Government of British Columbia cabled to its representative in Australia and it is now hoped that they have been successful in making arrangements which will enable the British Columbia firms to quote direct. They will thus be in a position to lay down their stocks in Australia under conditions identical with those under which United States manufacturers send their shipments.

Direct quotations are unquestionably at the root of the whole matter. It is little wonder that, in the past, British Columbia manufacurers have been unable to make much headway against United States firms, when they had to make their shipments through San Francisco houses. The volume of the trade done by United States firms made it possible for them to arrange for whole cargoes for this trade and to quote dealers c.i.f. at ports in Australia. The very fact that Canadian shipments have fallen off so greatly of late is an added handicap against securing future trade, because it increases the difficulty of making up cargoes. Therefore, the question resolves itself into one of finding out where the markets are and then arranging for shipping and banking facilities to enable Canadians to make direct c.i.f. shipments. This is where the government can come in. In order to be of the greatest assistance possible the government should appoint, as Mr. Pearce suggests, a man with the dignity of a Royal Commissioner, who should also have such an intimate knowledge of trade conditions as is required in the handling of this situation. Such a man must have a minute acquaintance with trade conditions and customs both at home and abroad, and be in a position to make definite arrangements to facilitate the opening up of trade. The great object to be attained is the inauguration of shipments direct from Canadian ports to foreign ports carried out under financial arrangements conducted by Canadians, thus putting the Canadian trade on an equal footing with that of its great competitor. Once this has been accomplished and direct shipments have commenced to reach such countries as Australia regularly, they will grow steadily and there will be no more necessity to lament about our inability to compete with our neighbors. It is a foothold in the foreign markets that is needed now. We have not as yet a real foothold in Australia for our lumber, and before long there will be little chance of getting one, unless we do something now, when the best opportunity that has ever presented itself is at hand. Very soon after the conclusion of the war there will be such a world-wide demand for lumber that the country which is in a position to ship to foreign markets successfully will reap splendid results. Canadian manufacturers of lumber will be ready to furnish the necessary stocks, if shipping and banking facilities are adequate.

A Rule Which Ought to Work Both Ways

So many lumber manufacturing and wholesaling firms in Canada carry on an international business, selling and buying in both countries that they look upon the two countries very much as one large market, paying very little attention to the peculiar situations which some times arise out of this fact. It does not surprise the Canadian lumberman much if he finds a Canadian consumer buying stock in the United States which has to be shipped a good many hundred miles, when he could buy something equally suitable for his purpose in Canada, possibly at a lower price, and perhaps a few miles only from his own door.

This sort of thing is going on all the time and every now and then it becomes so noticeable, or frequent, as to attract more than the usual amount of attention. Just at present a case in point is provided by a large demand which has suddenly developed out of the war in Europe. The War Office needs enormous quantities of saddles. Orders for these were given to British, Canadian and United States manufacturers. At first, the quantity of orders given to United States manufacturers made Canadian saddle manufacturers feel that they were being overlooked, and they made a complaint which resulted in an assurance being given by the War Office that Canadians would get as many orders as they could handle. The great size of the orders and the urgency for their completion however, makes it necessary that some of them should be given to United States manufacturers.

The peculiar point about the whole thing is, not that the Canadians want as much of this business as they can get, or think that the quantity of orders going to the United States was too great; but that the saddle makers in Canada, after complaining of orders being sent to the United States, failed to apply the same line of reasoning to their own case as they had to the War Office. When they got the orders for saddles they came into the market for supplies of birch, which is used extensively in the production of saddles. Did they look over the market and find that they could get this wood in Canada That is what we would have expected them to do. They may have done so to some extent, but no sooner had the saddle orders been received than United States lumber dealers found enquiries coming their way for birch. A lot of the orders for birch went across the line. It soon developed however, that practically the only place to get this stock was in Canada and back came the orders to Canadian lumber dealers, after being milked on the United States side.

So it happens that the saddle makers, who should know more about the situation, have been paying more for their birch than they would have paid if they had bought it in Canada. United States firms which have received similar orders for saddles are buying their birch from Canada direct. The saddle manufacturers in Canada do not seem to have given the Canadian manufacturer or wholesaler of birch a fair deal in this matter, but fortunately they have themselves been the only ones to suffer. The whole situation is discussed at considerable length elsewhere in this issue, by a prominent wholesaler who has had his ear to the ground in connection with this interesting new trade.

Feeding Loggers—An Important Camp Problem

If anyone who had to do with the management of a logging camp in Canada or in the United States in the early days of the lumbering industry—or even a few decades ago—should have been told that by the year 1914, the feeding of the men who work in the woods would have been reduced almost to scientific exactness, he would probably have laughed outright; yet in no other thing is the tendency towards improvement more noticeable to-day than in regard to the class of food which is put before the men employed in the bush. We are still a long way from perfection in this regard, yet there is a very general conviction that the feeding problem should be studied very carefully and standardized as much as possible. Look upon the situation which ever way you please—either as a business proposition or as one to be regulated by the dictates of humanity—it comes to the same thing. The man who works in the bush deserves to be fed well. He gives his best results in the form of work accomplished when he is fed well. Nothing has been more striking to the uninitiated visitor in the lumber camps of late than the fact that the men receive such excellent food and such a variety of it. In fact the stranger is more than likely to go away with the conviction that the men are over-fed.

It is not surprising therefore, that the secretary of an important

lumbermen's association, should recently have been commissioned to make an investigation of the whole problem of feeding the men in the woods, and should have presented a very interesting and valuable report. Mr. R. S. Kellogg, secretary of the Northern Hemlock and Hardwood Manufacturers' Association, presented the report at the recent quarterly meeting of the Association. Much of the report is published elsewhere in this issue and it will repay careful reading.

Two or three specially important points are brought out in this report, which were pretty generally recognized before, but which cannot be emphasized too much. One of these is the fact that a man who works in the bush requires much more food than a man engaged at a more normal occupation. The food problem therefore, becomes much more than the ordinary problem of feeding. It involves not only the health of the men, but their working capacity. Another important point to which attention is drawn is the possibility of reducing the waste connected with the food supply problem in logging camps. When, to the large amount of food actually needed in the camps for consumption, there is added the amount which may be wasted by an incompetent cook, the food bill becomes a very direct source of loss. The employment of a capable cook, in fact a cook who is an expert at his business.

It is evident from the report presented by Mr. Kellogg that the question is one which will bear a great deal more in the way of definite investigation, so as to bring about the desired results. The fact that one investigation has been made however, is good reason for congratulation. It provides an excellent starting point for future investigations and it affords also a practical set of principles and an interesting group of menus for meals, which will be very serviceable as a guide. We recommend everyone who has to do with the problem of feeding loggers to read Mr. Kellogg's report.

Editorial Short Lengths for Busy Readers

The New Brunswick government has removed the ban which prohibits the exportation of timber for pulp purposes cut on the Crown lands of New Brunswick, so far as it relates to the British Isles. This suspension of the regulation will probably remain in force until the close of the war.

During the forest fire season, closed recently by the heavy rains, approximately 12,000,000 board feet of timber was destroyed, and approximately 27,000,000 feet of standing timber killed in the State of Washington. The heaviest destruction occurred in Clallam county, where the estimated loss was 20,000,000 feet in killed and destroyed. In Pend Orielle county there were about 5,000,000 feet killed and 4,500,000 feet destroyed.

A recent report from Montreal stated that the military authorities had conceived a plan for dealing with a large number of German and Austrian reservists now in Canada who are regarded as a menace to the communities in which they reside because many of them are out of work. The plan is to send these persons to lumber camps during the winter, under an armed guard. They would thus be furnished with food and work and the product of their labor could be given to families of Canadian soldiers fighting at the front.

The Provincial Government of Alberta has given notice to its treasurer that, on or before June 1st of every year, owners of timber berths in the province will be required to pay to the Minister of Municipal Affairs a tax of 2½c per acre with a maximum tax of $25. The land affected includes all lands, owned, leased, held under licence, etc., for the special purpose of cutting or removing timber therefrom, or which are held as an investment, or for the accruing value of the timber growing thereon.

Mr. Ellwood Wilson, Forestry Superintendent for the Laurentide Company, Limited, Grand'Mere, P.Q., in a letter to the Canada Lumberman, tells of an interesting innovation which the company has been trying in connection with its woods operations. In conjunction with the Quebec & St. Maurice Industrial Company, the Laurentide Company imported from Newfoundland in August last, twelve reindeer, of which the former company took four. The Laurentide company have used dogs for a long time for drawing their sleds in winter, and find that they have many disadvantages. They fight. They get mangy. Their food has to be cooked for them, and in summer time they are very difficult to keep, as well as being a good deal of expense and a nuisance. The reindeer can haul heavier loads, can partly forage for themselves, can be used for food if necessary and cost nothing to keep in the summer. Then, too, seeing the poverty and lack of cattle among the Indians, the Laurentide company hope in time to be able to distribute some of these deer to the reservation on their limits and also to persuade some of the poorer settlers to use them. So far, their deer have done remarkably well and have demonstrated their usefulness in another direction, namely, clearing off burnt-over land and land which has grown up to hardwood brush so as to make it easier to reforest, by planting. The deer will eat every bit of hardwood, even bending down the smaller trees and eating the leaves and young shoots. They are particularly suited to the jack pine plains which cover such large areas north of this district and which abound in the reindeer moss. These deer will eat almost anything that cattle will. They had been running wild so long in Newfoundland that they are still somewhat difficult to approach but are rapidly becoming tame, and as soon as the rutting season is over the company will begin to train them. They require to be handled gently.

Mr. Wilson also reports that the Laurentide company has planted over 100 acres this summer and their nursery will have a capacity of 750,000 trees per annum by the spring of 1915.

It is reported from New Westminster, B.C., that the first shipment of lumber from a Pacific Coast port to an Atlantic Coast port by way of the Panama Canal is expected to leave New Westminster some time during the present month, the cargo amounting to 1,000,000 feet. The Robert Dollar Steamship Company placed an order with the three leading saw mills of New Westminster for this stock, which consists of heavy timbers and a variety of lighter stock in the rough. The order includes about 400,000 feet from the Canadian Western Lumber Company at Fraser Mills, the balance being divided between the Brunette saw mills and the Small and Bucklin company. It is believed that the successful carrying out of this initial order will open up an extensive trade for British Columbia coast mills.

From Sweden it is reported that the shipments of lumber products so far only amount to about 40 per cent. of what was calculated for the whole year, and in this connection it must be remembered that difficulties in navigation will soon arise on account of ice in the Baltic. A considerable decrease in the production has also been brought about through the war. Out of a total of 78 saw mills only 28 have been running with full force, 39 with about half force, while 11 have closed down entirely.

The swedish State Industrial Commission has resolved certain measures in order that the Swedish saw mills and planing mills may be kept running during the present crisis. There is to be started a very extensive felling and lumbering in the Government forests in order to procure the necessary raw material for the saw mills and pulp mills. Further, the Swedish Government will assist the mills by extending the time for the payment of their debts to the Government for lumber, which at present amounts to more than 2½ million dollars. This is on condition, however, that the mills be kept runnng all winter, even if they must store the products to a large extent.

A despatch from Grand Forks, B.C., states that twenty carloads of poles cut on the north fork have been shipped during the last two weeks for Ontario by the Western Lumber & Pole Company. These poles run from 40 to 65 feet in length, each pole undergoing the carbolineum process whereby the end is dipped into boiling pitch for ten minutes just before loading.

Foreign Openings for Canadian Lumber

Important Opportunities Developing for Widening Scope of Lumber Trade—Reports from Many Markets

One of the heaviest decreases in September imports into Great Britain is in wood and timber, and while the largest decrease was in shipments from Russia, there was a considerable falling off in receipts from practically all sources, the figures for the months of September, 1913 and 1914, being respectively:—

	1913	1914	
Value	£3,976,420	£1,773,318	= a decrease of 55.4%
Quantity (loads)	1,487,279	592,680	= a decrease of 60.1%

With the closing of the Baltic and the alternative Archangel route only open during a portion of the year, and with increasing difficulties of navigation in the North Sea, it is not surprising that the question of future supplies is receiving considerable attention.

As no branch of Canadian export trade is more thoroughly established and exploited than the lumber business, Canadian firms are kept constantly advised of the progress of events by their connections in this country, and will consequently be aware that recently very important inquiries are being made upon behalf of different industries.

Railway Ties

Another important feature to which some reference may be made is the future supplies of railway sleepers (or ties) for the United Kingdom railways. These are customarily obtained from Russia and Scandinavia, and the usual procedure is for the particular railway company to notify the important creosoting plants of their requirements, when these enterprises approach the timber importers and brokers with a view to obtaining quotations for the requisite supplies of wood.

It will be known that inquiries are now being put out upon behalf of several of the large railways, and it has been ascertained from the interests referred to that quotations for large supplies are being obtained from British Columbia and other parts of Canada, the successful termination of which should divert important orders to the Dominion.

It has been thought desirable to keep in touch with the business with the object of supplying any information which might be desired, but it is stated by the creosoting plants and timber importers that everything possible upon behalf of Canada is being done, and that the lumber firms in London associated with Candian interests are actively engaged in endeavoring to secure orders, and in this connection are in cable communication with Canadian sawmills and shippers.

It is understood that railways in other parts of the Dominion also purchase sleepers through London, and at least one important inquiry upon this account has also been referred to Canada. It might be mentioned in this connection that sleepers for United Kingdom railways are usually imported untreated to be subsequently creosoted in this country, while supplies for countries where no creosoting facilities exist must usually be creosoted in the country of production prior to shipment, because to send the wood to an intermediary country to be creosoted entails heavy additional expense which it is desired to avoid if possible.

Handles

It is understood that a large proportion of the inquiries with regard to wood and its manufactures are being made with a view to the future, and that in many articles considerable stocks are still available on this side. A number of applications however have been received for the addresses of Canadian manufacturers of broom and tool handles as reported in the shape of trade inquiries.—Weekly Trade and Commerce Report.

Welsh Requirements of Pit Props

The United States Consul at Cardiff, Wales, in a recent report discusses the Welsh requirements of pit props. After giving an outline of the situation, as already reported in the Canada Lumberman, he states that the imports into Cardiff in 1913 from Finland, amounted to 220,000 loads, there being approximately 1 1-3 loads to a ton of 2,240 pounds; from Sweden, 15,000 loads; from France, 550,000 loads; from Portugal, 250,000 loads; from Spain, 100,000 loads; into Newport, from all countries, 360,000 loads; into Swansea, 150,000 loads.

Pit Wood

Pit wood (all from France, Spain, or Portugal) consists of the trunks of trees from 15 to 20 years old, and is shipped green with the bark on. Of the imports, 55 per cent. is cut to 6½-foot lengths, diameter from 3½ to 8 inches; 35 per cent. is cut to 9-foot lengths, diameter from 5 to 12 inches. The remaining 10 per cent. is in 13-foot lengths, diameter 8 to 20 inches. Pit wood is sold by the exporter to the Cardiff importer per metric ton, f.o.b. Bordeaux, Lisbon, Oporto, etc. Prices have usually ranged from $3.64 to $4.37 per metric ton, and freights from $1.21 to $2.18 per ton of 2,240 pounds, the last named being an entirely exceptional rate. Prices, as between importer and coal mine, during the last few years have run from $5.34 to $5.83 per ton of 2,240 pounds, f.o.b. at the Cardiff docks. Since the war began prices have risen as high as $8.50 per ton of 2,240 pounds. At present writing prices have fallen to $5.83 per ton. The fall is due to slackened demand, a percentage of the collieries being idle. Terms, as between French shippers and Cardiff importers, are by draft at sight against documents where cargoes have been officially weighed at the port of lading.

The extension of time for the arrival in England of ships from Canadian ports with full deck loads of timber, which was reported recently in our columns, comes to an end on November 15th. After this date the restriction of deck cargoes to the level of the main sail will again be in force.

Small Woodenware Trade Openings

Referring to the British market for small woodenware, the following lengthy list of manufactures, published in the Canadian Weekly Trade and Commerce report, will guide Canadian woodworkers in their efforts to supply some portion of the present demand in Great Britain: Wheelbarrows, cheap cricket bats and croquet sets, skipping rope handles, bowls, tool boxes, pencil cases, rulers, writing and other cabinets, pipe racks, wooden brackets of all kinds, fretwork of all kinds, clock cases, wooden clogs and sabots, walking sticks, billiard cues, golf sticks, fancy boxes and small cabinet ware, writing desks, slates and school fittings, draughts and chess sets, ninepins, brush backs and ware, clothes pegs, wooden handles and knobs of all kinds, spokes, hammer and pick handles, gun stocks, boot lasts, brooms and brushes, broom handles, cornice poles and rings, wooden platters, spoons and butter prints, wooden hoops, spades, wickets, table and chair legs, balusters, bungs and spile pegs, wood wool, wooden pipe lighters, veneers, tree-nails, railway kegs, dowel pegs, wooden boot heels, mangle rollers, saddle trees; hubs, felloes, and cart and carriage ware, prepared woodwork for casks, bentwood furniture, parquet flooring, blind and builders' laths, electric light casements and fittings, wickerwork, chip boxes, jewel cases, tea chests, writing desks, pen holders, wood screws, photographic cameras and stands, serviette rings, paint brushes and handles, large quantities of cheap picture frames and mouldings.

German Woodworking Industry

Commenting upon the German manufacture of small wood ware and toys and games, the Timber Trades Journal, in its current issue, states: "Germans have done much in competition through extreme economy in materials and general management which in some manufactories has been reduced almost to a fine art. In the wood-converting industry, for instance, they have introduced machinery of an advanced type, which would either save time or material, and utilize wood which at one time was regarded as waste—a course of procedure which might often be copied with advantage in Great Britain. Extreme care has also been taken in the design of many of their mills, with the object of increasing the output and reducing hand labor to the lowest possible point. The economical production and transmission of power have also received especial attention—in point of fact, nothing is wasted."

War Office Supply Branch at Montreal

The Imperial Government recently opened an office at the Windsor Hotel, Montreal, to be used as headquarters for the purchase of British army supplies in Canada. In addition to many kinds of woolen goods, etc., the agents of the Imperial Government will ask for prices on 50,000 hair brushes, 50,000 shaving brushes, large quantities of picks, shovels, tent poles and mallets. It is also reported that orders will be given to saddlery manufacturers for 50,000 horse collars.

Match Wood—Match Boxes

An inquiry has been received from a Scotch match manufacturer for splints cut to sizes, or logs, for match wood and match boxes. About 1,500 cubic feet per week could be used. The manufacturer in question would be prepared to enter into a contract and would like to make arrangements with a producer in Canada for the supply of boxes and splints ready for use. For the information of those who might be interested it may be stated that the splints are packed in cases of seven rows, consisting of 1,200,000 pieces.

England Wants Canadian Box Shooks

In the Canada Lumberman of November 1st a report appeared, sent by Mr. Harrison Watson, Canadian Trade Commissioner at London, Eng., that a leading lumber broker of London desired to secure quotations on Canadian box shooks, as there was a possibility that the prices of Scandinavian shooks would soon advance sufficiently to enable Canadian shooks to share the trade. Specifications were furnished by the London broker and, through the courtesy of Mr. R. Grigg, Canadian Commissioner of Commerce, we are now able to publish these.

The enquiry comes from a prominent London, England, firm, and the specifications are as follows:—

Reference specification number one; Please quote lowest prices c.i.f. Garston, for the goods as specified below.

1d. Carbosil (B).

Sides 21¼ ins. x 9½ ins. x 5/16-in. in 2 pieces.
Ends 12¼ ins. x 9½ ins. x ⅝-in. in 2 pieces.
Tops and bottoms 20 ins. x 12⅞ ins. x 5/16-in. in 2 pieces.
Bars 9½ ins. x 2 ins. x ⅝-in.

Wood to be red &/ or white, but not more than 30 per cent. red, smoothly sawn.

All shooks to be tied with cord and to be stencilled plainly in red on the same side of each bundle with the respective letters mentioned.

The component parts of any side, end, top or bottom should be, as far as possible, confined to one set of measurements.

All measurements to be actual and all goods to be of good merchantable quality and to be in good seasonable condition.

Long Lengths

5/16 in.	4 - 5½ in.	420 Stds.
	6 - 7 in.	456 Stds.
	7¾ in.	36 Stds.
⅜ in.	4 - 7 in. and 8 in.	108 Stds.
½ in.	4 - 7 in.	60 Stds.
⅝ in.	4 - 7 in.	360 Stds.
¾ in.	4 - 7 in.	276 Stds.
	7¾ in.	48 Stds.
	8 - 9 in.	78 Stds.
	9½ in. and 10 in.	9 Stds.

The widths of all the above to rise by ½-in., approximately equal quantities of each measurement, except where otherwise stated.

Bars

2-in. x ⅝-in., 72 stds.; 2½-in. x ¾-in., 22 stds.

The lengths of all the above to be 5 to 12 feet, and intermediate ½ feet to be supplied as well as the even numbers. All prices to be per St. Petersburg Standard (1,980 feet b.m.). The boards to be tied with cord, 5 pieces for ¾-in. and upwards, and 10 pieces if less than ¾-in. Battens in bundles of 24 pieces. The widths to be plainly stencilled, preferably in red, on the same side of each bundle.

Wood for the above to be red &/ or white, but not more than 50 per cent. red.

Reference specification number two; C.I.F. Hull.

"A" Boxes

1 T 1 B 18¾ ins. x 13¼ ins. x ¼-in. in 3 or 4 pieces, t.g. and g.
2 Sides 18 13/16 ins. x 7¾ ins. x 5/16-in. in 2 pieces, t.g. and g.
2 Ends 13 7/16 ins. x 7¾ ins. x ½-in. in 1 piece.

Sides and ends to be planed one side, tops and bottoms to be sawn only. Both sides and both ends, to be printed. Tops, bottoms and ends may be made from red &/ or white wood, sides to be made from white wood.

Reference specification number three; C.I.F. London, Hull and Bristol.

No. 1 Boxes

1 T. 1 B. 19⅛ ins. x 13 ins. x 7/16-in. in 3 pieces t.g. and g.
2 Sides 19⅛ ins. x 6⅝ ins. x 9/16-in. in 1 piece.
2 Ends 11⅞ ins. x 6⅝ ins. x 11/16-in. in 1 piece.

No piece in tops and bottoms to be less than 3 ins. in width. All parts to be planed one side, and fine sawn on the other side. Edges to be planed. Particular attention to be given to see that three pieces forming tops and bottoms are well-seasoned. The wood to be red &/ or white, thoroughly dry, bright and well-seasoned. To be tied with wire.

Reference specification number four; C.I.F. Liverpool.

S. 3 Boxes

Inside measurements 17⅜ ins. x 12½ ins. x 8¾ ins.
2 Ends 13⅜ ins. x 8¾ ins. x ⅝-in. in 1 piece, planed one side.
2 Sides 18¾ ins. x 8¾ ins. x ⅜-in. in 1 piece, planed one side.
1 Top 18⅝ ins. x 13⅛ ins. x 5/16-in. in a or 3 pieces, unplaned.
1 Bottom 18⅝ ins. x 13¾ ins. x 5/16-in. if in 3 pieces, unplaned.
1 Bottom 18⅝ ins. x 13½ ins. x 5/16-in if in 2 pieces, unplaned.

The wood to be red &/ or white, thoroughly dry, and well-seasoned. All measurements to be actual after sawing and planing. To be tied with string.

Reference specification number five; C.I.F. London.

2-lb. Boxes

2 Sides 30⅞ ins. x 8⅜ ins. x ½-in. in 1 piece.
2 Ends 13½ ins. x 8⅜ ins. x 11/16-in., in 2 equal pieces, or 4 ins. and 4⅜.
1 T. 1 B. 29¾ ns. x 14½ ins. x ½-in. in 3 pieces, 5-in., 5-in. and 4½-in. or 4-in., 5-in. and 5½-in.
4 Bars 10⅛ ins. x 2½ ins. x 7/16-in.
4 Bars 9¼ ins. x 2½ ins. x 9/16-in.
4 Bars 14½ ins. x 2½ ins. x 7/16-in.

The wood to be red &/ or white, with as much white wood as possible, thoroughly dry, well-seasoned and sound, and sizes and thicknesses strictly adhered to. All measurements to be actual after sawing. To be bundled with wire.

Great Britain's Enormous Consumption of Pit Props

Some idea of the vast quantities of timber consumed in the coal mines of Great Britain may be gathered from the remarks of Mr. C. P. Markham, at the annual meeting of the Stavely Coal and Iron Company, held recently in Sheffield. At Stavely, he said, they used about three-quarters of a hundredweight per ton of coal, but the quantity used in South Wales was anything up to about four to four and a half hundredweight. The seriousness of the present shortage might be judged from a statement made to him by the leading people in the pit prop trade, that if the whole of the forests of Scotland were cut down there would not be sufficient timber to last the collieries of Scotland a fortnight. All kinds of substitutes were being tried, and no doubt something suitable would be found, but the outlook in the colliery world was very far from satisfactory.

Active Efforts to Secure Australian Trade

In connection with the efforts being made by the Government of British Columbia to encourage the Australian trade in British Columbia lumber, Hon. Dr. Young, provincial secretary, recently sent a telegram to Sir Richard McBride, Premier of British Columbia, who was at that time on a visit to Ottawa. In his telegram Hon. Dr. Young said:—

"Startling figures have been laid before me relative to conditions affecting the lumber trade. I suggest that you strongly urge Sir George Foster to negotiate with Australia for a preference tariff. In South Africa the 10 per cent. tariff on lumber has had a most beneficial effect in stimulating trade. British Columbia supplies 64 per cent. of the lumber imports. At present large orders from Australia to Puget Sound and San Francisco are likely to be filled out of logs now being shipped from this Province. Last year, shipments from Washington and Oregon to Australia were nearly twenty-three times greater than from British Columbia."

To this Sir Richard McBride replied as follows: "Have conferred with the Minister of Trade and Commerce relative to the lumber trade. He is very greatly impressed with your statement and will at once make representations to the Australian Government. Have a statement prepared in duplicate and forward through Provincial Government to the Premier and Minister here."

In a subsequent interview Hon. Dr. Young said:—"I am very hopeful that some good results will immediately flow from the present united efforts that are being made to place the lumber industry in this Province on a better basis in respect to conditions under which competition must be met in the overseas markets.

"Personally I would like to have the Canadian Government endeavor to negotiate a preferential tariff in respect to lumber. It has worked well in the case of South Africa, where we enjoy a 10 per cent. preference. With Empire unity greatly stimulated as a result of the war, fellow Britons in Australia will, I feel sure, be disposed to stand shoulder to shoulder with us in matters of trade and commerce. Therefore this may prove to be the psychological moment for us to press the point upon their attention."

A memorial sent to Sir Geo. E. Foster by Hon. Dr. Young, outlines the situation as above explained and makes the following general reference to the argument for preferential treatment of Canadian forest products entering Australia: "The hardwoods of Australia, the trade in which is gradually increasing, enter Canada free, and we are pleased it should be so, but we wish it clearly understood that we are not asking a free entrance for our lumber, not even a reduction in duty. Australia has a lumber industry to protect, and if for revenue purposes or the protection of her lumber industry, Australia considers it politic to retain the present duty or impose a higher, we have nothing to urge against such a course. We do not wish their manufacturers to suffer for our gain, but are content to rely on the natural requirements for our soft woods, made necessary by the continuous development of the Commonwealth, and that after putting on a duty to furnish a proper quota of revenue, and also protect their own home industry, they include also something additional which they can take off for the benefit of Canada, without hurting themselves. Preference, not free trade, is what we seek."

Opportunity Knocking for B. C. Trade

Languishing Export Lumber Business Can Be Revived—Direct Quotations c.i.f. the Chief Requirement—A Competent Royal Trade Commissioner Needed

Contributed Specially to the Canada Lumberman by Henry Pearce.

> "To quote direct; that is the crux of the export lumber trade question. . . . . Unless the mill owner in British Columbia is in a position to quote c.i.f., America will get control of the export lumber trade and keep it for all time. A fully accredited representative from the Dominion Government could, by visiting the world's buying markets, make arrangements whereby the mill owner in British Columbia would be in a position to quote c.i.f. to any port. . . . . Surely it is worth the trouble and expense to capture that trade and keep it for all time."

British Columbia has at the present moment, opportunity knocking at its doors, the opportunity of establishing for all time an export trade that will be to Canada what the coal trade has been to England.

The exploitation of trade is an Imperial necessity, war is closely allied to commerce, and the keeping and developing of trade in our empire, instead of letting our foreign competitors control it, is as important in war time from an Imperial point of view, as assisting the Empire with men and money. The American Government, since the war started have been making strenuous efforts to put themselves in an impregnable position, so that, when the demand comes, they will control this trade.

Statistics will show that in recent years American exports of lumber have steadily increased, and those of British Columbia spasmodically decreased. In consequence of the publicity given to these statistics, meetings of lumbermen have been called, the Minister of Commerce has directed his Trade Commissioners to prepare reports, and boards of trade have discussed the question as to why Canada, and more especially British Columbia, is not getting its fair proportion of the export lumber trade.

This business is not going to be developed by lumbermen grouching at the government; the government obtaining academical reports from their commercial representatives who have no knowledge of local conditions, or by rhetorical speeches at Board of Trade meetings. Business is a solid concrete fact of supply and demand, the supply having to be delivered in the manner it is demanded.

The Crux of the Situation

The B. C. Government a few days ago cabled the Australian Government, asking, if representatives from their country were negotiating for the purchase of a large quantity of timber, that they should be allowed to quote direct.

To QUOTE DIRECT; that is the crux of the export lumber trade question.

The mill-owner in this country (unless he is working a subsidiary business of an American controlled concern) cannot quote direct for the reason that he cannot quote c.i.f. He must quote through the lumber broker or shipowner in San Francisco. He is a mill-owner not a freight speculator, and has not banking arrangements to enable him to sell on D-A or D-P terms and so get put in funds immediately his cargo is placed on board.

The Canadian lumbermen are handicapped, their competitors in America have been established a generation before them, and have freight speculators, timber brokers and bankers, all assisting them, and above all a government acting as a glorified commercial traveller pushing their sales.

At recent meetings of the Lumbermen's Association and the Victoria Board of Trade there have been many reasons expressed by the lumbermen as to the falling off of the B. C. export trade.

The first should be dismissed as absurd; that of the American lumbermen selling at a loss. American industries have not been built up and maintained by selling at a loss.

The second is that there is no internal demand in British Columbia for low grade lumber, so that if an order is taken for two million feet to ordinary export specifications, the mill-owner is stocked wit hanother two million feet of low grade lumber which is unsaleable. It is quite obvious that as America has a demand up country for low grade timber, if British Columbia has not a demand elsewhere it is useless for it to enter into competition with America; but there IS an EXPORT demand for the lower grades and there is no reason at all why simultaneous export orders should not be booked for the ordinary export specification for one market, low grades to another and the higher grades for England and Europe, all shipments being made practically at the same time on different boats.

Thirdly, the lumbermen say they cannot compete with Puget Sound in loading ships, contending that now cargoes are so large it is impossible for any British Columbia mill to handle a big ship without paying excessive demurrage, whilst Puget Sound mills are able to split cargoes up, and so fill the ship quicker. Supposing, however, that export markets were found for our lumber (and the markets are to be found), what is to prevent any mill built on landlocked waterfrontage, from cutting its timber and putting it straight on to scows ready to be loaded when the ship arrives? Regular orders would have to be booked ahead, and the millowner would know what the actual shipping demands would be. It is not suggested that kiln dried lumber or the finished product should be stored on scows for an indefinite period, the suggestion is simply that when a millowner is to fill large orders, and naturally knows within a week or so when his ships are arriving he can store a large proportion of his cut timber especially the lower grades, on his scows. The capital value and upkeep of scows capable of running alongside of every hatch of a ship immediately it arrived, would not be nearly as much as the interest on the capital value of the cheapest waterfrontage on Puget Sound.

The last prominent argument is adverse labor conditions. It is hard to understand this because America claims that we have more advantageous labor conditions from a manufacturing point of view, than they have. Whether that be right or wrong, the one fact remains, that war will very materially alter the labor conditions in this country. A war of this magnitude is not going to adjust itself to labor conditions; labor must adjust itself to war conditions. This is no argument of classes against masses. It will be the masses who will insist on an adjustment of the labor question for the common good; and common good is industrial encouragement.

If all the existing lumber mills in British Columbia were working at full pressure there would be no reason to fear any adverse economic conditions that might obtain during the war. We can forestall the necessity of creating unremunerative work for the unemployed, by developing remunerative industries.

Greater Government Assistance Required

The lumber industry is crying for official and effective backing by the government. We have today an Australian Commission on the Pacific Coast making arrangements to buy timber products. We have an English Commission arriving in Canada studying the question of buying timber products, but we have no commission going to the markets of the world studying the question of SELLING our timber products.

An individual mill-owner cannot go to England and interview the Government, Board of Trade, shipping companies, and banking institutions. He cannot speak for, or pretend he is advising his Government. He would have no official status, and could only speak for himself. Neither could the lumbermen get together, and send a man to England. He would simply be the representative of a "lumber combine." The Government, however, could appoint a Commission of one or two people who had an international commercial knowledge and who understood the local conditions obtaining in the lumber trade of British Columbia. If that Commission did its work properly the effect would be felt immediately.

Preferential tariff with our Colonies is not going to make our trade. It might help to a certain extent, but it is not the solution of the diffifficulty. It has been suggested that preferential tariff has resulted in increased trade in South Africa. It is not wholly that. South African trade in itself has increased, and the South African merchant is biased. He does not like dealing with America. His is an old established business and he instructs his old established agents in England to purchase direct from British Columbia. There is something more than preferential tariff. A ten per cent. preference in duty, is very often not a one per cent. preference in frights. It is shipping and banking facilities that will develop our export trade.

The Trade Commissioners are undoubtedly doing good work, but they have not British Columbia knowledge of the lumber trade, and general knowledge of commerce throughout the world. They have local knowledge of their commerce and a cursory knowledge of the lumber trade throughout the world.

A man appointed by the Dominion Government with all the dignity of the office of a Royal Commissioner, can interview shipping companies, bankers, etc., confer with the governments, and all the time be in direct touch with the lumbermen here.

The Government should control an Inspection Bureau for the

grading and tallying of all export shipments. When this was suggested a little while ago, some prominent lumbermen said they were quite satisfied with the Pacific Coast Inspection Bureau, with headquarters at Seattle. After all, the buyer wants protection as well as the seller, and the most prominent buyers in our Colonies and South America agree that it would be of great assistance to them in buying British Columbia lumber, if it was graded and tallied with a British Columbia Government certificate. Bankers say they could handle the finance better, and shipowners say they could quote freights better. Surely it is only common sense to realize that, if we wish to exploit British trade, we should endeavor to exploit it under British, not American control.

The war is going to revolutionize the lumber trade of the world whether it lasts three months or three years. Whether it ends in such a victory as will reduce the German and Austrian Empires to third rate powers, or results in a patched up peace; there is one dominant fact, that the demand for lumber from the Pacific Coast will be enormous. The present stocks will soon be depleted, and with the Baltic closed, timber having been declared contraband of war, the Pacific Coast will soon be called upon to fill immediate demands. When the war is over and the Baltic open, so much lumber will be required to repair war's ravages that the demand must exceed the available immediate supply.

America is making a bold bid for the control of this export business. Unless the millowner in British Columbia is in a position to quote c.i.f., America will get that trade and keep it for all time. A fully accredited representative from the Dominion Government could, by visiting the world's buying markets, make arrangements whereby the millowner in British Columbia is in a position to quote c.i.f. to any port.

Great Britain has a fleet to protect British export trade. The British Government has formulated a policy to finance the insurance of that trade. British Columbia has the timber to fill the demand for a great export lumber trade. Surely it is worth the trouble and expense to capture that trade and keep it for all time.

Pacific Coast Shipments to Australia

Shipments of lumber to Australia from Pacific Coast points during the past twelve years were as follows:

Year	Oregon and Washington	British Columbia	Total
1902	40,668,373	20,631,920	61,300,293
1903	74,577,269	5,155,175	79,732,444
1904	94,384,911	7,699,076	102,083,987
1905	49,460,945	13,910,784	63,371,729
1906	82,377,126	25,241,110	107,618,236
1907	75,652,089	25,281,057	100,933,146
1908	119,895,764	12,063,042	131,958,806
1909	55,268,439	31,381,803	86,650,242
1910	110,101,945	39,068,228	149,170,173
1911	158,476,721	28,788,159	187,264,880
1912	172,326,274	25,406,046	197,732,320
1913	228,673,576	10.100,036	238,773,612
	1,261,863,432	244,726,436	1,506,589,868

It will be seen, therefore, that Pacific Coast shipments to Australia have increased from 61,300,293 feet in 1902 to 238,773,612 feet in 1913, or over 390 per cent., and that whilst in 1902 British Columbia enjoyed over 33 per cent. of the trade, last year she had only 4 per cent. The combined foreign shipments to all parts of the world from British Columbia, Washington and Oregon for 1913 reached the huge total of 600,000,000 feet. Of these shipments our natural markets of Australia, New Zealand, West Coast of South America, China and Japan, absorbed 83 per cent. of the whole in the following proportions:

	Per Cent.
Australia	40
New Zealand	1½
	41½
West Coast South America	20
China and Japan	21½
	83
United Kingdom and the Continent	7½
South Africa	3½
Miscellaneous	6
	100

From the above it will be seen that of the 83 per cent. our sister Dominions of Australia and New Zealand took 50 per cent., of which British Columbia mills supplied only a little in excess of 4 per cent.

It is said that the first sawmill in the United States was at Jamestown, from which sawed boards were exported in June, 1607. A water power sawmill was in use in 1625 near the present site of Richmond.

Spanish Market for Cooperage

The weekly report of the Canadian Department of Trade and Commerce in a recent issue contained the following:—Large quantities of cooperage are manufactured annually at Almeria in Spain for the shipment of grapes. In view of the fact that a very high grade of cooperage is now being made in British Columbia, the following particulars with regard to the possibilities of this trade furnished by the British Vice-Consul at Almeria should prove of interest: Grape barrels are chiefly made of oak and pine—probably more pine is now used than oak. Apart from a few shipments of oak staves from Liverpool brought there from the United States the remainder is imported direct from New Orleans. The quantities from this source for the three past years were as follows:—

	Tons.
1911	5,180
1912	4,604
1913	3,718

Of pine timber Portugal supplies as follows:—

	Tons.
1911	1,632
1912	3,036
1913	2,280

Very considerable quantities of pine are supplied by the country itself. It is brought chiefly from the west coast of Spain, from the Balearic Islands and from the Barcelona district. Lesser quantities are also brought from other parts of the country.

Dimensions of Staves

The dimensions of the pine staves are as follows, viz.: Length, 0.49 to 0.50 centimetres; width, 5.50 to 6 centimetres; thickness, 6 to 7 millimetres. The number of pieces to a barrel are 28 to 30. Ends, 0.42 x 0.42 centimetres—three pieces, although a proportion of four pieces is admitted—thickness, 10 to 11 millimetres. The prices of this timber range from 0.65 to 0.85 cents of a peseta ex store for the quantity necessary for each barrel. The hoops for these barrels come chiefly from the north of Spain, and from the Barcelona district. Occasional cargoes are imported from Italy. It is feared that the freight rates from British Columbia would practically preclude business. The shipments of barrels of grapes to the various markets during the past three years were as follows, viz.:—

	Barrels.
1911	2,382,640
1912	1,870,216
1913	1,974,290

This year it is expected that the total shipments will only be about 1,500,000, as the crop is a poor one.

New Customs Ruling on Lumber Entering the U.S.

Reference was recently made in the Canada Lumberman to the ruling made by the United States Department of Customs in connection with the duty upon certain classes of lumber entering that country. The ruling placed a duty of 15 per cent. ad valorum on a large number of items. Later information which has been received shows that all lumber which is further manufactured than planed or tongued and grooved, is now held to be dutiable. This covers all beaded material, rough lumber, novelty siding, mouldings and a large number of other items.

The new ruling caught a number of Candian mills with United States orders on hand. Some British Columbia mills with orders from Seattle wholesalers on their books are either compelled to cancel the business or pay the duty to get the lumber into the States.

When the new tariff was enacted the department held that under it, novelty siding, beaded material and other lumber coming under the "further manufactured" class was not dutiable. This position was maintained by the board of customs appraisers at New York City on a case which originated at Burlington, Vt., where Canadian lumber in question was entering the United States. Recently, however, on another case, an appeal was taken and the assistant attorney-general of the United States has now ruled that novelty siding, beaded material, moulding, etc. is dutiable and customs officials along the Canadian border have been so advised. As a result a number of shipments of such material have been held up on the border pending payment of the duty.

The customs officials also are holding that all coved material, such as coved flooring, is dutiable. The tariff specifically provides, however, that ordinary tongued and grooved flooring shall be duty free. The customs officials also hold under the new ruling that car roofing, which has a cove on the bottom, and battens are dutiable under the ruling of the attorney-general.

The council of the Board of Trade at Montreal has received notice that the next congress of Chambers of Commerce of the Empire will be held at Toronto in the autumn of 1915. This will be the first meeting of the Congress in Canada since 1903.

A Fine Example of Industrial Progress

J. H. Gignac, Limited, Quebec, P. Q.—Whose Expansion Commenced Thirty Years Ago and Still Continues—Widely Known Lumber Dealers and Woodworkers

It is always interesting to cast a retrospective glance over the modest beginnings of some particular branch of Canadian industry, and to compare them with the really wonderful development the same industry has since undergone, especially within the last quarter of a century.

Taking, for instance, the saw-milling business in old Quebec, a city which was a pioneer in the Canadian lumber export trade and shipbuilding enterprise, we find that the first saw-mill that was established there was built and started somewhere between the years 1823 and 1825 on Hare Point, by one of the early shipbuilders of the ancient capital, whose example was quickly followed by others in the same line of business. In its rudimentary form, such primitive machinery was confined to the squaring and shaping of the coarse timber used in the construction of river and ocean craft.

As far as the oldest survivors can recollect, it was not before the great fire of 1845—which ravaged that part of the city—that the first regular sawmill, with planing and grooving plant, was established in St. Roch's Ward for the dressing of wood used in house construction. This was the humble starting point from which has radiated all around an industry which, while seemingly putting out of competition the old-time carpenter handicraft, nowadays gives steady employment to legions of men, just as in other parts of this country and the United States the simple village blacksmith shop of a hundred years ago has developed into huge iron and steel corporations.

A Notable Instance of Progress

A notable instance of progression in this line is the case of the Gignac firm, of the City of Quebec, now known all over Canada under its corporate style of "J. H. Gignac, Limited." Thirty years ago, in 1884, Mr. J. H. Gignac, then quite a young man, who from the very start has always been the mainspring of the business, started in a small way a more modern wood dressing workshop than those which existed at the time. The original firm was styled: "O. Gignac & Fils," taking its name from his venerable father, who has retired from business, having attained the fine old age of 86.

Due to Mr. Gignac's unfaltering perseverance and above all to his enlightened belief in improved machinery and co-operative methods, the Gignac establishment has grown and expanded from year to year, until it has attained its present imposing size, the proportions of which would suggest the expenditure of enormous capital by a powerful joint stock company, whereas, in reality, it is but the fruition of individual energy and executive ability. The head of the present company is efficiently seconded by Mr. F. X. Huot, chief foreman, and his eldest son Mr. Arthur Gignac, as secretary-treasurer.

A few figures gathered from the history of the firm will give a better idea of its growth. In 1884, it started with 6 men in the shop. From 9 men in 1885, the force grew to 30 in 1886, 40 in 1887 and 1888. From 1889 to 1900, the average personnel in the mills ranged from 75 to 100. Ten years afterwards, it had doubled, and in 1914 the firm has under its orders from 400 to 600 employees, in its extensive shops, lumber yards and wharves on the River St. Charles.

Growth of the Plant

In 1884, the premises consisted of an ordinary sawmill with 6 machines only, planers and groovers included. In 1904, the plant comprised about 60 machines. In 1909, when the firm celebrated its 25th anniversay, it had 102 machines in working order, every one of them up-to-date, all the old ones having been discarded. At present, the number of machines in the sawmills is 134. From the original modest wooden shack in which Mr. Gignac started business in 1884, to the four-street block and over-street extension now occupied by the offices, workshops, lumber sheds and yards proper, there has been a big jump. Ten years ago, the ground area covered by the whole Gignac establishment was 97,000 square feet; to-day it has been enlarged to 119,000 square feet.

The mills are conveniently situated alongside the Canadian Pacific Railway Quebec-Montreal line, with which they are connected by a private siding, as well as with the Canadian Northern and Quebec & Lake St. John lines. In close proximity to their main property, the Gignac Company own and occupy for their own use a wharf frontage of 705 feet on the meandering shores of the River St. Charles (which, by the way promises to be a most attractive high water stream for new manufactures when the dam and lock now under way by the

Extensive modernly equipped plant of J. H. Gignac, Limited, Quebec, P. Q.

Government are completed. This also means for the Gignac Company an additional area of 159,000 square feet of lumber yards.

System and economy are the watchwords of the Gignac establishment. The 200 h.p. steam engines running the mills burn nothing but the sawdust and shavings which are pneumatically fanned into the boiler room. A perfect dry kiln is another of the features of the equipment. Needless to say, with such facilities for manufacturing and shipping, with the most improved machinery in existence, the company is in a position to supply a large market. The number and variety of its products would require columns to enumerate if we had to enter into details. Its catalogues and price lists include, outside of the ordinary sash and door business, a most elaborate selection of pressed hardwood mouldings, show cases, office and store fixtures, church pews, school desks and benches, trunks, club bags and suit cases, mantel pieces, toboggans; in fact anything that wood may be shaped in.

The Head of the Firm—J. H. Gignac

Mr. J. H. Gignac, the head of the firm, is himself a living encyclopedia on the "lignum" question. He is the happy possessor of a most complete collection of forestry samples from all over the world. His home, his den specially, is nothing if not a decorative exhibition of the most precious species in the line. His business offices on Church street are walled in the finest mahogany, and we understand he is working in his leisure hours on a revised technical catalogue of Canadian and American trees. In his youth, he studied drawing and architecture, and for many years he was one of the official teachers in the Provincial School of Arts and Manufactures. He is the President of the Canadian Manufacturers' Association, Quebec Branch. He was four times elected as a City Alderman and for the past twenty-five years has been a Councillor of the Local Board of Trade; but public life, in which he certainly would have played an important part, if he had yielded to the requests of his fellow citizens, had little attraction for him. He preferred to return quietly to his favorite studies and avocations. His specialty as a lumber manufacturer and an expert on forestry did not however prevent him from undertaking important public works. He is the contractor for the new Dorchester Bridge in the St. Charles River, which the city will shortly inaugurate.

Some of the notable contracts of his lumber firm proper are the inside woodwork of the Beauport Church (a remarkable Gothic treatment in hardwood); the first Canadian Northern elevator; wood work of the Chateau Frontenac; Lake St. Joseph Hotel; Banque Nationale in Paris (France); Eastmure Building in Toronto; Lake Edward Sanatorium; Quebec Court House; Quebec Tercentennial Grand Stands and Triumphal Arches, etc.

Mr. Gignac is a firm believer in national industry and in practical means to bolster it up. The firm's favorite slogan is "Patronize Home Products." It has done a good deal to advertise Canadian lumber abroad. As far back as 1884, its products won a first prize and medal at the Antwerp Exhibition, and, in 1886, at the Colonial and Indian Exhibition in London (Eng.), it was awarded a diploma and gold medal. For the past twenty-five years, it has been a constant exhibitor at the Quebec Provincial Exhibitions, where its display is always made on an extensive scale, as may be seen by one of the photo engravings which accompany this article.

A serious fire occurrrd in the lumber yards owned by Brady Bros., at Tonawanda, N.Y., recently, destroying between 3,000,000 and 4,000,000 feet of lumber.

Ottawa Fire Insurance Rate Advanced

Ottawa, November 9 (Special to the Canada Lumberman): All the agents of Fire Insurance Companies in Ottawa, to-day received instructions from the Fire Underwriters' Association to increase their rates in the Capital from 25 to 50 per cent. All rates on lumber and all kinds of manufacturing and mercantile risks are to be increased 50 cents on the dollar on all new business. On residential buildings the increase is to be 25 cents on the dollar for three-year policies. The mercantile, manufacturing and lumber risks were formerly from 75 cents to $1.50 per $100 and from 65 cents to $1 on residential property.

The notice sent out by the Fire Underwriters' Association received by the agents to-day reads as follows:

Owing to the serious deficiency in the water supply, rates in this city are increased from to-day as follows:

"All rates on mercantile and manufacturing risks, except those of 'fireproof' or 'mill' construction or equipped with automatic sprinklers, are increased on buildings and contents by 50 cents on the no-coinsurance rate and proportionately on the coinsurance rates.

"All rates on lumber yards are increased by 50 cents on the no-coinsurance and coinsurance rates.

"Rates on all risks under the three-year tariff are increased by 25 cents for three years, or half of this amount if written for one year.

"All sprinkled, mill constructed and fireproof buildings will be re-rated and ratings published immediately."

The action of the Fire Underwriters' Association is the result of the serious conditions regarding fire protection in the city disclosed by the report on the water pressure by Mr. Norman Wilson, inspector for the association, made early last week and presented to Mayor McVeity. The city has decided to carry out his proposals without delay. These were to purchase three new fire engines of 1,000-gallon capacity each; to install a new overland intake pipe; and to provide for an additional electric power transmission line to the new Slater Street booster plant. This afternoon the board of control agreed to call for tenders for the fire engines at once.

Lumbermen and merchants of all kinds are much concerned about the latest demand of the Fire Underwriters.

The Powers of Dominion Charters

An important ruling re pulp and paper companies, as well as other concerns, has just been handed down by the Privy Council of Great Britain in an appeal from a decision of the British Columbia Supreme Court, in regard to the companies' case. In brief, this long drawn out matter has been interpreted that a company, having a Dominion charter, does not require an extra Provincial license to do business in any of the nine Provinces of Canada. It is expected that Ontario will thus lose about half a million dollars' revenue annually. The Province has been deriving an annual income of this amount from licensing companies which have been paying this tax, and they will decline to pay it any longer. In Quebec there will be no difference in revenue, for the reason that all companies having a Dominion charter, have always been recognized by the Provincial Government.

Estimates made by pulpwood buyers in New Ontario are to the effect that the amount of pulpwood taken out by settlers this fall is about thirty per cent. in access of any previous record. It is reported that about 120,000 cords are ready to be teamed to the railway line when sleighing permits.

J. H. Gignac, Limited, Quebec, P. Q.—Wharves and yards at Hare Point.

J. H. Gignac, Limited, Quebec, P. Q.—Display at Quebec Exhibition, 1914

Feeding Men in Logging Camps

VALUABLE REPORT UPON SOME OF THE ESSENTIAL POINTS
By R. S. KELLOGG

Editor's Note.—The following is part of the report presented by Mr. R. S. Kellogg, secretary of the Northern Hemlock & Hardwood Manufacturers, at their recent quarterly meeting. The report also contained a complete set of menus for each meal for thirty days.

Probably no occupation calls for a greater expenditure of energy or grows larger appetites than Northern woods work in winter. Expressed in technical terms, the standard army ration in the United States provides more than 5,000 calories of energy daily, while authorities say that only about 3,500 calories are required to keep a man in good physical condition. The scientists define a calory as the quantity of heat required to raise one pound of water four degrees in temperature. Translated into United States, a calory is equivalent to the energy required to raise a weight of one ton 18 inches. While the army ration provides in excess of 5,000 calories per man, studies of the consumption of food by woodsmen in Maine in winter time show a requirement of 5,000 to 8,000 calories of energy daily, which doubtless holds for woods work in Wisconsin and Michigan. This means that the heat value of the food daily consumed by the Northern woodsman is sufficient to raise his weight of water from the freezing to the boiling point, or is equivalent to the energy required to lift a dead weight of one ton to a height of 1¾ miles. Large as these figures seem, they are probably no surprise to the camp foreman who has watched the swift disappearance of eatables in the cook shanty or to the logging superintendent who has been called up at the company office to justify the cost of feeding his men.

In addition to the very large amount of food actually required for men in logging camps, there has always been a great deal of expense because of the waste arising from feeding a large number of men under rather crude conditions or from actual ignorance and carelessness on the part of incompetent cooks. Probably no employee has it in his power to make or lose more money for the logging operation than has the cook. Large as is the expenditure required for feeding men by wholesale, the subject has so far received almost no careful study and regulation comparable with the attention that has been given other phases of logging operations.

Without in any way assuming to have solved the problem, because the time has been too short and the means altogether inadequate for the purpose, I have endeavored to bring together a few suggestions for bills of fare for logging camps that are presented here today. Supplies are costing more than ever before with no prospect of much reduction in price in the near future. It becomes especially important therefore to devise a ration that shall combine economy with sufficient quantity and variety to keep men well nourished and satisfied. In the recommended bills of fare worked out for thirty days, there are no two meals which are exact duplicates. This, of course, is carrying the variety further than is necessary, but it has been done for the purpose of showing a large number of suitable combinations of economical elements. Any one can, if he so desires, pick out from this list a good rotation based upon seven or any other convenient number of days and lay in supplies accordingly.

Variety May Be Overdone

It is recommended that at any one meal there be only one kind of meat, one kind of cake or cookies, and one kind of pie on the table except as may be necessary to clean up left overs. I have eaten in camps where it is customary to have five kinds of pastry on the table at one meal. This greatly increases the opportunity for waste and makes it impossible to give sufficient variety from day to day. One kind of vegetable for breakfast and two kinds for dinner and supper are sufficient. Where the menu shows an additional vegetable (in parenthesis) it is with the idea that it may be either omitted from the program or substituted for potatoes if thought best. Likewise, either a cereal or pancakes may be omitted from breakfast if greater economy is desired. All sauce is to be made of dried fruit which is much more economical than canned fruit and very good if rightly cooked. Dried fruit is greatly improved by soaking over night before cooking. Pie many times may be made from the left over stewed fruit. Hash and soup, of course, are a standard means of saving many leftovers. Gravies and dumplings are economical and desirable. By far the cheapest meat available this year will be salt fish and hog liver. Corned beef—an old stand-by—is practically out of the question because of excessive price, unless camps have facilities for making it themselves. Fresh frozen fish will be a cheap meat through the winter and it is placed on the program for Friday night suppers. Mutton will doubtless be the cheapest fresh meat that can be obtained and it can be served to good advantage in a variety of ways if sufficient ingenuity is exercised in the cooking. Besides being cheaper per pound, mutton has a larger ratio of meat to bone than beef. The tougher cuts of beef are just as nutritious as the expensive cuts and can be made very palatable if rightly cooked. Long, slow cooking is required for them and could any camp cook be induced to experiment with a fireless cooker no doubt good results would be obtained. When we occasionally adorn our private dinner tables with a sirloin steak that costs 30c a pound and is 50 to 75 per cent. water we are a long way from either economy or scientific nutrition.

Since discussion of the subject began, a logging superintendent has increased the proportion of salt meat used and he writes:

"We have greatly reduced our camp cost by using more salt meat instead of all fresh meat as was our custom in the past. This alone will reduce the cost of feeding men at least 7c per day."

Energy Producing Foods

The cereals are among the best energy producers and very readesirable. Especial attention should be given to the use of corn meal, desirable. Especial attention should be give nto the use of corn meal, hulled corn, macaroni, graham mush, etc. Beans, of course, are a universal standard in feeding men for heavy work and a good substitute for meat. The program provides for their constant presence on the table for dinner and supper. Sugar is also a valuable element of food, and sirup or molasses should be on the table for breakfast and supper. Eaten with pancakes, fried mush or bread, sirup gives a good food at small cost. By way of variety, some camps have occasionally secured bargain prices on strained honey and used it in place of sirup. Some of the glucose jellies which are put up in large buckets can also be used for this purpose. In order to avoid the excessive use of sugar, which is often left an inch or two deep in the bottom of tea cups, a member of the association suggests having part of the tea pots set on the table already sugared and others without sugar for men who do not care for it in their tea. Another member has recently adopted the expedient of serving meat to the men in individual side dishes, hotel fashion, to prevent the excessive consumption of meat to the exclusion of other foods. If this works out all right, it will be a matter of much interest.

The most important thing to bear in mind in connection with camp bills of fare is that much more can be accomplished by having a variety of well-cooked, nourishing, but not necessarily expensive foods, than by attempting to maintain a hard and fast menu day after day without change. There probably isn't a logging camp of more than fifty men anywhere in which it would not be possible to double the cook's wages and still save substantially on the cost of feeding if the right kind of cook could be obtained. In other words, the wages paid the cook should be the last thing to be considered in connection with his employment. Some cooks are too expensive if paid only their board and others are cheap at $100 a month.

Probable Costs of Food This Winter

I understand that meat products for camp use will probably cost about as follows this winter: Cow beef, whole carcass, 10c per pound, with hind quarters around 1½c and 2c above this figure and fore quarters 1½c under. Skinned hams about 15½c and a good grade of bacon 16½c to 17c. Mutton will be the cheapest fresh meat available this winter at from 7½c to 8c with the exception of hog liver at about 5c. Barrel pork for frying purposes should be about $20 and suitable for baking with beans about $18. A good grade of pork sausage which will not shrink much in frying will cost about 13½c. Sausage can be purchased much cheaper than this, but it is not economical. Incidentally, I may say that it is possible to take 30 pounds of meat, 20 pounds of cereal and 50 pounds of water and make 100 pounds of commercial sausage. No doubt some of you can recollect having run across a product of this sort. Liver sausage should cost about 10c, Bologna sausage 11c, good Frankfurters 13c and head cheese 10c. Sheep brains will cost about 7c and when mixed with corn meal and fried make a very satisfactory dish. Fresh frozen pickerel at 9c offers a means of serving fresh fish through the winter at reasonable cost. Dried pollock, a good substitute for codfish, will cost about 5c a pound and genuine codfish 9c to 12c. Mackerel and salmon are higher than usual, but round shore herring at $6.50 to $6.75 per 200-pound barrel are very cheap eating. Ordinary mince meat will cost about 9c, but condensed mince meat at 13c is recommended since it can be made up in such proportions as desired at camp. Good American cheese will be about 15½c and oleo all the way from 11½c to 21c, a recommended grade running from 15c to 16c. Corned beef quoted at $30 a barrel is out of the question if we are figuring upon economy. Sour crout should cost about $7.50 per 40-gallon cask.

The cost of the principal fruits and cereals this winter will run

about as follows, f.o.b. shipping point: Dried peaches, 6c to 7c; apples, 7½c; apricots, 11c to 12c; prunes, running 60 to 70 to the pound 8c to 9c. There is a good crop this year and canned apples should be bought for $2.75 a dozen or less in gallon cans. Tomatoes in gallon cans will cost about $3.00 a dozen. Pie material in the shape of gallon cans of pumpkin is priced at $2.50 a dozen, and rhubarb at $2.60. Corn in 2-lb. cans will be about 75c a dozen and peas 80c. Cut beet pickles in 3-lb. cans ready to serve are listed at 85c per dozen. Medium sour cucumber pickles will cost around $8.50 in 30-gallon barrels, jelly, any flavor, 50c per 15-lb. pail, and corn sirup 28c per gallon in barrels or $1.75 in 5-gallon cans. Condensed milk is quoted at $3.50 to $3.60 per dozen cans, hotel size. Flour of good grade will be in the neighborhood of $5.75, graham flour about $5.50, and corn meal $4.50 to $4.75 per barrel. Dried peas are listed at about $1.75 and beans at $2.75 per bushel or less. Beans have dropped since the flurry following the outbreak of war. Oats are high this year and oatmeal is quoted at about $2.75 in 90-pound sacks. Rice of good quality is reported at 5c, macaroni at 6c, and barley for soup at 4c per pound. Crackers are listed at 6½c in 20-lb. boxes with discount for large orders. Potatoes and all fresh vegetables should be reasonable in price throughout the winter. Camps situated so that they can cultivate adjacent cut over land, can produce an abundant supply of vegetables very cheaply.

At the logging meeting on August 29 the suggestion was made by one or two members that the Association should establish a Domestic Science Department and put a man on the road to instruct camp cooks in the feeding of men. Such a radical innovation may not be made at this time, but there is no doubt that the subject warrants a great deal more study than has so far been given it, and if I am able to make a helpful contribution toward this end I shall feel more than repaid for the effort required.

Death of Mr. P. W. Strickland

The sudden death of Mr. Percy Wade Strickland, president and general manager of the Canada Lumber Company, Limited, Toronto and Weston, Ontario, came as a shock to his many friends in the lumber business, both n Canada and in the United States. Mr. Strickland, who was 53 years of age, was a son of the late Geo. W. R. Strickland, of Lakefield, Ont. He was born in Lakefield in 1861. After attending the local grammer school, he went to Port Hope College. After completing his studies there, he returned to Lakefield and went into the lumber business with his father.

In 1892 Mr. Strickland went to St. Paul, Minn., where he joined the staff of one of the large lumber companies. A few years later he accepted a position with the late Frederick Weyerhaeuser and took charge of several mills in Wisconsin, making his headquarters at Strickland, Wis.

About 1902, Mr. Strickland went into business for himself in Minneapolis, forming a partnership known as Barnard & Strickland. Some years later Mr. Weyerhaeuser offered him the position of secretary and general manager of the Rock Island Sash and Door Works and the vice-presidency of the St. Louis Sash and Door Works, which offer Mr. Strickland accepted. He continued in this position until 1910, when illness obliged him to resign.

Returning to Canada, Mr. Strickland rested for a year and then formed the Canada Lumber Company, Limited, of which he was president and general manger at the time of his death. During his business life in the United States, Mr. Strickland, in addition to his business interests was frequently honored by appointment to the position of chairman in several important lumber associations. Mr. Strickland is survived by his wife and one son, Mr. L. F. Strickland who has been associated with his late father for some time in the management of the Canada Lumber Company's business.

Mr. Edward L. Jewett, a prominent citizen of St. John, N.B., who was formerly well known among the lumber trade, died recently at his home, after a brief illness. The late Mr. Jewett, who was 70 years of age, was a native of Bangor, Me. At sixteen years of age he went to St. John, N.B., and became associated with his uncle, the late Mr. E. D. Jewett in the lumber manufacturing business under the name of E. D. Jewett & Company, of which firm he later became a member. He also engaged in lumber manufacturing on his own account, operating a mill at Millidgeville. During the past few years Mr. Jewett had retired from active business.

Mr. Chas. Miller, St. John, N.B., widely known throughout the province of New Brunswick as a prominent lumber manufacturer, died on November 4th at the age of 55, as the result of a paralytic stroke, which he suffered on the previous day. The late Mr. Miller was a native of Hollis, Me., but went to St. John when a small boy. He was engaged both in the lime and lumber businesses, operating a large lumber and shingle mill and several lime kilns. He is survived by his wife, four sons, a brother and his mother.

J. M. Donovan Brings Home a Bride

J. M. Donovan, Toronto, Ont.

Mr. J. M. Donovan, of the Long Lumber Company, Hamilton, Ont., one of the best known lumber travellers in Ontario was married recently in Helena, Ark., to Miss Cornelia Smith, daughter of Mr. & Mrs. C. E. Smith, of Helena. The bride was given away by her father, and the groom was attended by Mr. Gammage, of Memphis, Tenn. Following the wedding, a short reception was held at the home of the bride's parents after which Mr. and Mrs. Donovan left for Hamilton, Ont., where they now reside. Mrs. Donovan was extremely popular among her home friends and has brought with her to Canada their good wishes for herself and her husband in their new home. The Canada Lumberman, and all of its readers who are acquainted with Mr. Donovan, will join heartily in the congratulations and good wishes which are being extended to Mr. and Mrs. Donovan.

Mr. A. J. Morris, vice-president of the Mississippi Hardwood Company, Jackson, Miss., spent a week in Toronto recently upon business. Major R. S. Wilson, of the Wilson Lumber Company, Toronto, is president of the Mississippi Hardwood Company. Before taking up his present position, Mr. Morris was well known to the lumber trade in Toronto, where he was Major Wilson's assistant. Mr. Morris reports that just previous to the war his company was working up a very nice export business in hardwoods to Great Britain. This trade of course had suddenly decreased with the outbreak of the war. A fair amount of business was being worked up however, in the United States and Mr. Morris reported that considering the general trade situation, his company was doing a fair business.

Mr. Arthur J. Hendry, brother of the president of the B. C. Mills Timber and Trading Company, has succeeded Mr. R. H. Alexander, who recently retired, as assistant manager. Eric Hamber, formerly comptroller for the company, has been appointed general manager. Mr. Hamber, who is a son-in-law of the president, was formerly prominently connected with the Dominion Bank.

Mr. G. H. Millen, joint manager and director of the E. B. Eddy Company, Limited, Hull, P.Q., recently celebrated his 76th birthday. Mr. Millen is still hale and active and attends to his office duties every day.

Better Conditions Developing at Boston

Editor Canada Lumberman: Boston, November 5

The general conditions of the lumber business here are pretty poor at best but we can see a good deal of hope in the general situation. The exports, from reports from Boston and New York, are running very heavy at present—not for lumber, but for general merchandise, and particularly food stuffs. They are about the largest ever known. Finances are showing a marked improvement. We heard of money being offered today for the first time at 5½ per cent. by a broker. It is generally felt that money conditions will be much better before long. The cut of lumber in Maine has been very much curtailed of late. Many mills have shut down, and this seems to have put a stop to the fall in prices, in the spruce schedule at least. Of course, as Canadians doubtless know, there is considerable shortage in the Ottawa alley. Our own mill is shut down and most of the other mills. We don't know just what the shortage is, but should assume it would amount to at least 25 per cent. on the cut, perhaps a good deal more; the Ottawa Valley cut still being very large, this would certainly make a shortage of 100,000,000 or more—probably more.

We have found in our travels that there is a general intention to make a small cut next year; that is, the cut in the woods will be light, so we cannot help feeling that conditions next year may not be nearly as bad as a good many people have thought. Nevertheless, there is very little doing in either Boston or New York now and in the markets all through the eastern part of the United States.—Shepard & Morse Lumber Company.

The British Columbia Government will display, among other things, a cargo of birch at the Panama Exposition. Mr. P. D. Roe, of Port Moody, will take out the lumber.

A Few Puzzles for Lumber Consumers

Why Do Saddle Manufacturers Buy Canadian Birch from United States Wholesalers? Why are Some Canadian Woods Neglected?

"We are enjoying good business and have no fault to find with trade conditions, considering the general situation," said a wholesale hardwood dealer to the Canada Lumberman a few days ago. "There is a fair amount of ordinary trade going on and the extra trade arising out of orders for army equipment is being spread about in many parts of the country so as to make some lines of the lumber trade quite active. Even without the trade in army equipment stock, we would be doing fairly well and with it we feel pretty well satisfied; but it needs a great deal of hunting to find out where the orders are and then a lot of figuring to get them. Large quantities of lumber are being used by manufacturers of motor trucks and transportation wagons, the manufacturers of these vehicles being all very busy. The saddle manufacturers have also received orders up to their capacity and as they require a lot of good birch for saddles we are doing a nice trade with them, too.

"There are some things about this class of business that puzzle me," continued the lumberman. "You saw in the papers several complaints about the amount of orders for saddles that went to the United States firms. Canadian saddle manufacturers at once raised objections to this, claiming that these orders should have come to Canada. The matter assumed such proportions that the war office thought it advisable to make a public announcement upon the subject and to assure Canadian saddle makers that orders for saddles would be given to them up to the limit of their capacity, but that the amount of stock required made it necessary to send many orders to United States manufacturers as well. I do not wonder at the Canadian saddle manufacturers taking the stand they did. Their trade had been very quiet before the war and they felt, very rightly, that as Canada was bearing a share of the burden of defence of the Empire, Canadian manufacturers had a distinct right to get the best share of any benefits which were to be given outside of the British Isles. I am glad to see them getting all this trade and hope they will be kept busy at it, so long as the war continues. But the saddle manufacturers ought to follow the example set by the war office and place their own orders in Canada. The major portion of orders for lumber to make these saddles is going to United States firms, but much of the lumber sold by these United States firms to Canadian saddle manufacturers is bought by the United States firms from Canadian lumber manufacturers and dealers. So you see, we are coming out of the thing alright and are not making any complaint on our own account, because we get the business anyway, but why does the Canadian saddle maker prefer to buy in this round-about manner? He does not save any money by it; in fact he loses. We sell the stock to the United States firm and the latter sells it to the Canadian saddle maker at a higher price. We could sell it to the saddle maker for less money and in a less round-about way. We are now getting a good deal of this trade direct, but still there is enough of it going by the other route to make one wonder why this is the case. The stock does not actually move over to the States, as we simply get the order from the United States houses and make the shipment to the saddle maker direct. It is not a question of grades, or quantity of stock available, or anything of that nature, as a few of us in Canada have most of this class of stock, and the orders have to come to us in the end. The United States saddle manufacturers who have secured a share of the war office orders seem to know more about this business than the Canadian firms. They are buying their stock in Canada and shipping it away down south to their factories.

A Long Trip for Canadian Birch

"A few days ago a strange thing happened when I was waiting at a small railway station for my train. The freight agent asked me how to bill a car load of birch to a certain city in the Southern States. I told him all I could, which was little enough, as I had never made any shipments to that city. That is a long way to ship birch I thought, however, and I told him so. Then he gave me proof of the matter by showing me the carload of birch and the name of the firm to which it was consigned. A little investigation showed me that it was for saddles. I wrote the firm in the south and now we are getting their orders for birch; good big orders, too. It is a long way to ship such lumber, but they must have it down there and there are not many besides ourselves who can give it to them.

"I might go into this matter much deeper and ask a lot of questions which it would be hard to answer, for I have been in the business a long time and do not know the answers myself as yet. Look at the trim business. Canadian people think that they must have oak trim. Birch and ash have a hard time against oak and chestnut. In the United States, however, birch and ash are used extensively for this purpose. We sell large quantities of these woods over there. The United States people admit that high grade birch and ash are just as fine a line of trim as oak and chestnut, and are considerably cheaper. Why do not Canadians feel the same way about it? I cannot tell you, but it is a fact. Like the saddle makers, they seem to have made up their minds the wrong way and to have persuaded themselves that they must have United States lumber, even at a higher price. I wish someone would give me the explanation of this. I have puzzled over it for a long time.

"Here is another case of much the same nature. Down east they use birch and maple for stair risers. They take 10-in. and up stock 1½-in. in thickness which would cost on an average $45 to $50 a thousand. In western Ontario they want oak again. Everything seems to be oak. As they insist upon it they get it and they pay $10 to $15 a thousand more for it, if they buy a similar grade.

"A greater puzzle still is the case of wagon stock. Here again the Canadian manufacturer calls for oak in many cases in which the United States manufacturer uses birch. The United States manufacturer, moreover, is turning out ten wagons to one turned out by the Canadian manufacturer, and there are just as many of these American wagons used in Canada as there are Canadian wagons. The Cnadian wagon manufacturer finds the competition of the American wagon almost too much for him, yet he uses a more expensive imported stock of lumber, and the United States manufacturer imports the Canadian stock which is cheaper, but fills the bill as well.

Piano Stock a Case in Point

"In the production of pianos the question comes up again, but in another form. It is something like the case of the saddle maker. The piano manufacturers use a lot of 1-in. and 3-in. birch and they want fancy stock. The enquiries are largely sent to United States firms and these firms charge a fancy price. Now the birch sold by United States firms to Canadian piano manufacturers comes in most cases from Canada. A few days ago we quoted a Canadian piano manufacturer on an order for birch and we did not get the order. A little later I was in Buffalo and a good friend of mine there who buys a lot of our birch told me that he was selling birch to this Canadian piano manufacturer and that I might as well have the business myself direct. When he told me the price he was getting, it turned out to be several dollars a thousand more than what I had quoted the same stock at to the same firm. Well, I thought, if the Canadian manufacturer wanted to do business in this way it was his own concern, not mine, and I told my Buffalo friend that he was welcome to go ahead and take the orders, as I would be just as glad to sell the stock through him as the other way, since the quotation I had given was turned down. The birch went from us direct to the piano manufacturer, but the Buffalo firm got a good commission upon the price.

The Agricultural Implement Case

"I could go on and tell you about cases like this. I know where an important firm of agricultural implement manufacturers refused to buy our stock. They bought in the United States. One day I was on the water front and I saw some of this stock being unloaded. It was not of the grade the company thought it was. We could have sold them that kind of stock at much less than they were paying for it. I learned afterwards from the shippers of this stock, when I was calling upon them one day in the United States, that they had taken out the better class of boards after the stock had been inspected and had sold them to another company. Then they sent the balance to the Canadian firm. They had done this quite a lot and as everyone seemed to be satisfied they saw no reason to change their way of doing things. It was some time before the Canadian firm found out that they were not getting what they were paying for, and they then made a complaint. After that the Canadian firm went on buying United States stock, but they had already lost a good deal of money, and although they had been treated in this manner they still continue to think that they can get better value on the other side of the line.

"Probably you do not want to hear of any more instances. I can give you a great many more, but there is the simple fact of the whole situation, that many Canadian consumers of hardwood buy their stocks from United States firms, when they could do better on the Canadian side. Some of them make a great kick when orders for the goods that they manufacture go to American firms, but they send their own orders for lumber abroad. They lose money upon it and there is no objection to this from our point of view; but I wish someone would come along and tell me why it happens so often."

Imports of timber into Australia from Canada during 1913 were valued at £67,989. In 1912 the value was £70,922 and in 1911 £121,328.

Wood Substitute Claims "Simply Rot"

Editor Canada Lumberman:— Buffalo, N.Y., Nov. 3.

It is true that there has been a campaign started throughout the United States with a view of curtailing the sale of lumber. They are not altogether a philanthropic bunch, but like most steel men, are out for what there is in it.

We, as manufacturers of lumber, sanction putting into the modern skyscraper buildings just as little inflammable material as possible; in fact making them as near fireproof as a building can be made, but the argument does not apply to the ordinary two to five storey building and it is simply rot when they apply it to residences.

The writer has lived in Buffalo something over forty-five years and during that period has seen but very few frame buildings completely destroyed by fire. This fact favors the wood structure, as four-fifths of the residences and dwellings in Buffalo are of wood construction. But, although 75 per cent. of the dwellings here in Buffalo are roofed with the wooden shingle, we cannot recall where the roof caught from a spark from any neighboring fire.

Some of the cities whose ordinances excluded the use of the wooden shingle have, since giving the matter more careful consideration, rescinded it. Metal, cement, stone and brick have their places, and it is only fair to favor their use in the business district of large cities, but they can never take the place of the artistic frame house, cottage or bungalow, nor will metal ever take the place of highly finished hardwoods even though they may get out a good imitation of them.

Interior finish of metal is lifeless and cold and it retains an odor that is indeed unpleasant. The next time you are in a sleeper, note the difference. The odor in an old time wooden sleeper is sweet compared with a metal car that has been in use only a few months, the latter having a stale metal smell. We mention this not because we do not favor the steel passenger and sleeping coaches as the safer, but simply to call the public's attention to the fact that with a metal interior finish in their homes or living apartments, the odor thrown out would not be at all pleasant; to the contrary, decidedly stale.

Steel is bound to substitute wood in places, but the demand will never cease for hardwoods and the increased building and construction work going on throughout Canada and the United States will always create a large demand. If cement and steel had not been used during the past ten years to the extent it has, work would have been retarded for a lack of wood to take its place.

We are willing to leave it to the buyer, and for that reason we should **stoutly contend against any unreasonable restriction** that might be brought about to prevent the use of either hard or soft woods.—New Ontario Colonization Company, Limited.

A Vital Matter for the Retail Trade

A wholesale lumberman in Toronto who has given considerable attention to the insurance situation in connection with building materials, writing to the Canada Lumberman says:—

"The use of heavy timbers for slow burning construction has been going on for some twenty-five years past, and I do not think that the insurance companies will be able to show that there has been as great a loss on buildings using timbers, particularly white pine or fir, as in buildings constructed with steel. A number of instances can be cited where buildings constructed with steel beams and girders have collapsed on account of the twisting of the steel under the heat of a conflagration. There are frame planing mills and factories, using woodworking machinery, standing in Toronto to-day that have been on fire several times, but the loss to both buildings and machinery has been small because such a fire is easily put out, while factories built of brick have been gutted with heavy loss because of the difficulty of getting at a fire which is enclosed within a brick furnace.

"The effect of extending the brick limits in Toronto has been to fill up the newer districts with cheaply constructed brick terraces which are far more liable to destruction by fire than isolated frame houess would be.

"I have not at present any suggestion to offer as to what may be undertaken in the way of a campaign to further the use of lumber for building purposes. This is a matter which would require careful consideration, particularly by the retailers who are most directly interested in this end of the business. It certainly looks as if the brick, concrete and steel manufacturers were making strenuous efforts to advance the interests of their respective materials."

The same writer draws attention to the fact that the fire losses in the residence sections of the cities and towns of the central and eastern States, which are largely built of frame houses, have been small as compared with losses in residence sections built of brick, either isolated or in terraces. Moreover, insurance rates on frame buildings in residence sections of such cities as Buffalo, Rochester and other cities in the eastern States are very much lower than on brick buildings in the residence section of the city of Toronto.

Shingle Trade Suffering From Substitute War

One of the most vigorous sections of the war upon lumber by manufacturers of substitutes, is the attack of the patent roofing companies upon the wooden shingle. After standing idly by for several years and watching the patent roofing companies invade their territory, the shingle manufacturers both in Canada and the United States are now showing an appreciation of the dangerous situation that has developed. The American Lumberman has been devoting considerable space to this feature of late. The following excerpts are from letters to the American Lumberman, which were published in recent issues:

Opinions of Leading Western Shingle Manufacturers

F. A. Traill, president of the Shephard-Traill Company, Seattle, and until recently manager of the Red Cedar Shingle Manufacturers' Association, wrote:

"I have your favor of the 12th, and thank you for calling my attention to articles on page 25 in the last issue of the Lumberman. I have read both items with a great deal of interest. I am sorry that there is now no organization of shingle manufacturers to follow this matter up, as the Red Cedar Shingle Manufacturers' Association had to throw up the sponge owing to lack of support by the millmen themselves, and is now in the hands of a receiver, who is winding up its affairs.

"There is so much that can be done, and so easily done, but I almost wore myself out trying to make the millmen see the necessity of doing something to save their own business, without avail, and now I am afraid it is going to be a hard job to get the mills together again to do anything, until it is too late. I do not think that the shingle business would to-day be in the present serious condition if years ago, when the patent roofing people first began their campaign, they had taken steps to combat the lies that have been spread by our competitors. Even now a very little effort would disclose in nearly all towns exactly the same condition as shown in Milwaukee. What little investigation I have made shows that this is the general condition, and our friends the enemy, have just pulled the wool over the eyes of our city fathers, by making strong statements, without any real effort to back them up by facts. These statements, not being controverted, were taken as gospel truth without any real investigation as to the actual facts. What would be the chance of getting the facts in Chicago along the same lines as were obtained in Milwaukee?

"I have checked over the report of the Toledo (Ohio) fire department for 1910, which I have here. I find that there were 51 fires originating from sparks from chimneys out of a total of 794 alarms, less than 8 per cent. The loss from these fires, which we might possibly figure originated in the roof (and we have no means of knowing whether all of these were shingle roofs) amounted to $2,470.48, out of a total loss of $261,692.36, or less than 1 per cent. I also checked the 1911 report for the amount of loss in frame buildings as compared with brick, stone, cement and other fireproof buildings, and I find that 96 fires in brick and similar buildings showed a loss of $256,272.93, while 385 fires in frame dwellings only totalled a loss of $55,569.88. The average loss on frame was about $144, while the average on the fireproof amounted to $2,669. This shows even greater discrepancy than Milwaukee. As I find time I will dig up more statistics as I may find them in the various reports of fire departments I have here. If you have a good statistical man on your staff I would suggest writing the various fire departments for their reports, and see what can be dug out of them."

The British Canadian Lumber Corporation, Limited, Vancouver: "We are glad to see that you are about to start a propaganda on behalf of the sale of wooden shingles. This is a matter that should have been attended to years ago, and we think now it should be prosecuted with the greatest enthusiasm. We believe that had the shingle industry combined to advertise wooden shingles to anywhere near the extent that the manufacturers of patent roofing have done, there would now be a much greater sale for the wooden shingles as there is no doubt whatever that the wooden shingles for certain purposes have not yet been equalled. The idea of giving the shingles a coating of non-inflammable paint would offset any arguments regarding the danger of fire."

The Coast Central Mill Company, of New Westminster:— "We agree with you that the wooden shingle manufacturers must awaken to the danger to their industry caused by the attacks of manufacturers of competitive roofing, and by other interests that are claiming wooden shingles to be responsible for so much fire loss. It does not seem to us worth while to try to convince the public that fires are not caused by wooden roofs, but it is important that some steps be taken to make shingles more fire resistant than they are."

The Smith-Shannon Lumber Company, Vancouver:—"That some organized campaign should be carried on to combat the efforts of the patent roofing people we thoroughly believe, but we have not been able to figure out what would be the most effective way of doing this. In what way do you propose to raise funds so that the booklet you suggest can be distributed to the points where the subject is under discussion? We have a shingle association here, of course, which is quite efficient, but no proposition, we believe, has ever been put up to it in a sufficiently concrete form to be interesting."

Adams River Lumber Company's Flume

In a recent issue of the Canada Lumberman an article appeared describing the various methods of constructing flumes for the carriage of timber over long distances. We have pleasure in publishing now an illustration of the flume erected and operated by the Adams River Lumber Company, Limited, Chase, B.C. The purpose of such a flume is to bring logs from otherwise inaccessible districts. The flume in

A Part of the Eight-mile Flume of the Adams River Lumber Company

the illustration, when completed, will be 11 miles in length and will tap a recently acquired timber berth of about 25,000 acres. It will give easier and less expensive transportation for logs from this limit than what the company had from its old limits on Upper Adams River. The drive on Lower Adams River will be eliminated. The maximum curvature of the flume will be 10 degrees, and the grade will vary from 2/10 of one per cent., where the flume leaves the head works on Adams Lake to a maximum of 16 per cent. in Bear Creek Canyon. The curves have been held down to permit transporting

Large Log Dump at the Head of the Adams River Lumber Company's Flume

80 to 100-foot poles and piling. Most of the timber will be handled direct into the flume from log chutes. The flume will be extended into the timber as it is logged, the same way as logging railways are extended to follow the cutting. The flume is being erected under the supervision of Mr. W. D. Starbird, of Spokane, Wash., and the section illustrated was put up by Mr. J. H. Tracey, the firm's woods superintendent.

The Adams River Lumber Company have also built a dam which creates two small lakes to supply a head of eight feet of water for fluming purposes. As a result of the opening up of the new limit, about one-half of the output of the company's saw and planing mills is now fir, the balance being cedar, spruce and pine, whereas cedar formerly predominated. The officers of the Adams River Lumber Company are J. P. McGoldrick, Spokane, president; A. J. Lammers, vice-president and managing director; W. J. Lammers, secretary and assistant manager; R. J. Mason, treasurer.

An Interesting Point of Law for Loggers

An interesting legal point in connection with employment of men in lumber camps is involved in the case of Spreckley vs the Campbell River Lumber Company, which recently came up for trial before Judge Holway in British Columbia, the judgment in which had not been given when latest reports were received. The point at issue was whether an employee, hired by the month at a given rate, can be summarily discharged, despite the fact that he is a competent workman. Spreckley brought suit against the Campbell River Lumber Company for alleged wrongful dismissal. The company claim that Spreckley, who is a cook, was a competent man, but had been summarily dismissed because of a previous arrangement made by Mr. Seeley for the company with a former employee, to the effect that on his return the cook camp should be turned over to him to run under contract. Several members of other lumber companies testified that the custom in vogue was to discharge an employee without ootice at any time. One witness stated that he was at liberty even to discharge a good man at any time providing he could secure a better one in his place. The plaintiff testified that other companies, for whom he had worked previously, made him agree not to leave their employ until a substitute had been secured.

Timber Limit Case Judgement

The Supreme Court, Ottawa, has recently overruled a judgment given in the court of Montmagny and later upheld in the Quebec Court of Appeal, King's Bench. The judgment is an interesting one to lumber merchants, being in connection with the case of Howard vs. Stewart, involving the sale of timber limits by a settler to a lumber merchant named Howard, when the seller only had a location ticket on the ground. Later when the settler secured letters patent in his favor, he re-sold the same ground to Mr. Stewart. Hence the litigation. The court at Montmagny annulled the sale to Mr. Howard and this judgment was upheld by the Quebec Court of Appeals, but the higher tribunal at Ottawa has legalized the sale. The case involved a sum in the vicinity of $5,000.

Fifth Annual Commission of Conservation Report

The conservation movement has made distinct progress during the past year, according to the "Fifth Annual Report" of the Commission of Conservation, which has just been issued. Considerable advance is reported in the conservation of forests during the year. The Commission has co-operated with the Board of Railway Commissioners and the several provincial and federal forest services concerning the prevention of forest fires, with the result that much has been done to prevent forest fires along railway lines, especially in Western Canada. In addition to the report of the chief forester, Mr. Clyde Leavitt, there are addresses on forestry by Dr. B. E. Fernow and Mr. R. H. Campbell. The report contains a number of splendid illustrations and gives in concise form much information that is of value to all Canadians interested in the conservation of our natural resources.

Big Drop in Ontario's Revenue

Premier Hearst, minister of lands, forests and mines, recently intimated that returns from revenue thus far received indicated that the actual revenue to be derived from his department this year would be some $500,000 less than the estimate of $2,800,000 made at the beginning of the present fiscal year. The falling off is attributed largely by the Premier to the hard times and the war and to the action of the banks in refusing necessary assistance to the enterprise of the holders of licenses in the timber districts.

Mr. James A. Conners, of James W. Sewall's office, Old Town, Me., is making a careful exploration and estimate of certain timberlands along the line of the C. P. R. in Maine. Mr. Sewall is at present in northern New York on a cruising trip.

Problems of Retailing in the Effort to Treat All Customers Alike

There are many things in the conducting of a retail lumber business that we all think alike on because their general effect is practically the same on everyone engaged in the business. Moreover, these things are desired by everyone and every practical business man recognizes both their justice, and at the same time, the difficulties in the way of their being made practicable. We know, for instance, that it would be better to conduct business on a strictly cash basis that would preclude the charging of any sale accounts whatever. But in a world where three-fourths of business is done on credit, it is a practical impossibility to do business on a rigid cash system. The only business that can approach its attainment is a close monopoly, such as the Federal post office for example, or any line of business that has no competition. Understand what I mean by a cash basis, is the cash being paid on delivery of the goods, and no charge accounts being put on the books. Then again there is another thing that, though we recognize the justice of it, yet it is practically unattainable in the retail trade, and that is selling to everybody, at the one and the same price. These two things—a rigid cash basis, and one-price-to-all—are beautiful theories to talk about and wish for, but in their strict application to the retail lumber business as it is now constituted, is a proposition where theory and practice are widely apart, and the difference so great, that it is practically impossible to unite them into a working proposition under the present order of things in the business world and the social economics of the time.

I would not use such positive terms in relation to this subject, had I not been for the greater part of my life in daily contact with human nature as it is exhibited in the business of buying and selling. Some things we know and we know that we know them, and there are some things we assume to know but we know that we do not know them though we may attempt to convince others that we do. I have often thought that a good deal of our life is made up of "bluff." We would stand a poor chance in getting along as well as we do if we didn't do more or less of "bluffing it through." In every case there are two extremes and a medium. Applying this to the subjects under consideration we have the cash-on-delivery system as one extreme, and at the other the lack of any system, with holding our sales down as near as we can to a cash basis, as the medium policy of action. In the case of prices, the policy of one-price-to-all is one extreme and the other extreme is the policy which is, and has been, practically universal in the retail lumber business, namely, giving to every man a price that will sell him the goods which in old fashioned terms means, "barter and dicker." The medium of this is what every progressive dealer is trying to do; the giving of the same prices to all alike as far as competition will allow. It is not easy even to do this, and its success largely depends on how much we can make our business non-competitive, for the less competition we have the more closely we can adhere to a uniform scale of prices. Therefore, if a dealer wants to establish the policy of selling to all at the same price, and make a success of it, he must first of all conduct his business in such a way, and with such attractions in it, as to influence every body to trade with him in preference to anyone else. This is the goal which he should constantly strive to reach and in proportion to his advance towards it, so will be the progress in the success of his one-price policy.

Will Not Make Much Progress.

An old saying tells us "we must take things as they are, and not as they ought to be." This is a comfortable doctrine and easy to comply with, and many there are who follow it, but they are not likely to make much progress. I believe instead that we should all the while be trying to make things better than they are, and in this way keep ourselves on the road to perfection though we know we will never reach it. I mean, however, as far as our abilities will permit, and these will grow greater the more we use them.

I have spoken of the practical impossibility of doing a retail business on a strictly cash basis. It may be nearer possible in some lines of trade in the large city, but conditions there are very different from what they are in a farming community, and in a newly settled country especially, and the reasons for this are such obvious facts to every country dealer that it almost seems superfluous to mention them. But, for the sake of discussion, take the present conditions of this fall for example. The great war in Europe will create an unprecedented demand for foodstuffs of all kinds and the American farmer knows it, and he likewise believes the longer he holds his grain the higher the price he will get. But he wants to do some building, and to do it he must turn his grain into money, providing, he has to pay cash for his material. But, does he sell his grain or go and borrow the money to do this? Not much he don't if he has a good "stand in" with the lumber dealer. If he is a reliable man and a regular customer, the dealer will willingly give him two or three months time on the material and glad of the chance to charge his full yard prices for the accommodation.

Another farmer, not so reliable, comes in and wants some lumber, and also wants to hold his grain. He is told he can have it, but he will have to give a secured note for the time he desires it. Maybe he will agree to this, but like as not he will go to the bank and borrow the money, and naturally feeling peeved at the dealer for not allowing him to "run his face" he makes that money "talk" by figuring around for the lowest prices. If the dealer finally sells him he has to because of being the lowest bidder, and the prices he bets are far different from those he is charging the time customer, although the two men may be in the alley at the same time and getting stuff off from the same piles.

This is no theoretical illustration. It is done every day in the retail lumber business. Every country dealer knows that when the average farmer is compelled to pay cash down for what he buys at a lumber yard, he is going to get all he can for his money, and at the same time "shoot full of holes," the one-price-to-all theory. No matter how much the retailers may desire to sell for cash only they don't want to on a lean profit basis. You may sell a bill or two against mail order house competition and on their terms, but you really are not hankering to sell all your bills on such a basis. If dealers are willing to do this, that the nearer they get to what I call a cash basis, with the farmer, the more they will have to contend with the figuring around instincts of a man with the cash in his hand. Take it home to yourself. If you want to buy a bill of goods for your family and can't spare the money for them just at the time, what do you do? You buy them of your home merchant on time and pay him his own prices. But, if you have the cash to pay on delivery, you will want him to "throw off," or if it is near convention time, you will wait till you can make your cash go further at the bargain stores in the large city, as many of you are prone to do on these occasions. You do this because you have the same human nature as the poor renter whom you require to "shell out" before he takes the stuff from the yard, and it is this same human nature that has to be taken into account and reckoned with in every transaction, and in every policy we adopt in business relations. Selling for cash only is a will-o'-the-wisp that a generation of retail lumbermen have chased with varying experiences, but, as yet, have never succeeded in pinning it down to a complete success.

Have Learned to Govern Their Credits

The more progressive have learned to govern their credits in such a manner as to eliminate the worst features of the credit system. A few months back I discussed this governing of credits, and told of instances of dealers who had had the courage to do it and of their success in their efforts, and this is what we all have got to come to; the circumscribing of our credits, and keeping them in due bounds and giving them in a businesslike manner.

There is another angle though to this limiting of credits which is worth considering. It is the question whether or not it would have the effect of curtailing business if it should be universally adopted. Those who are close to the consumer in a country town know that when business is dull the temptation is great to stimulate building by offering to sell to reliable parties on anv time that will suit their convenience or ability to pay, and a good deal of it myself in cases where I knew the men were reliable and good for any amount they contracted to pay. But if I had suggested their borrowing at the bank, or giving me an interest bearing note, they would have shaken their heads and said they guessed they could get along awhile longer with the old house or barn.

As a matter of fact, a good share of the improvements made in a new country are made possible by the retail lumbermen in this way. If they had been stingy in giving credit to reliable parties, there would have been a retarding of progress in their respective localities.

A Scheme to Increase Business

It is being advocated in some quarters that in order to develop the lumber business and encourage the consumption of lumber all through the year, a system of long time credit should be established by the lumber industry as a whole. The proposition in brief is something like this: A reliable farmer who wants to put some new improvements on his farm could have the opportunity to do so by giving a joint note of himself and wife for the material, further secured by a lien on the farm. The dealer in turn could use this note to pay the manufacturers and wholesalers from whom he bought his stock, and they in turn—if they needed it—could borrow money at the banks on it as security, or discount it as any other commercial paper. The theory of this scheme is plausible and would be all right if it could be made to work as proposed. There is no doubt but that it would stimulate the consumption of lumber and in this respect benefit the manufacturers. The question is, would it work? It looks as though it would all depend on the willingness of the banks to buy and carry the paper. No doubt the inducement would depend somewhat on the rate of interest carried by the note, and the discount they could buy it for. The farmer would not be willing to pay more then the lowest legal rate of interest, and in such times as these, or any time when money is in great demand, the inducement would be too small for the bankers to invest

in this class of paper. As I said before, the suggestion is a good one for it would relieve the retailer from carrying a burden that would be transferred to the banks of the country where it really belongs. It would require a large amount of capital to swing this scheme, and it is a question whether there is enough profit in such paper to make it an object for the banks to take it.

One difficulty I can see in it is that most of the improvements made in this way would be by farmers who were still in debt for their land or had a prior mortgage on it. In this case the lien would act only as a second mortgage, and it is rather difficult to float commercial paper with this class of security. Doubtless some of you who are doing business in a new western town would like to be able to sell your lumber bills in the same way as the implement dealers sell harvesters and threshing machines, which as you know are sold on the several years time and the notes given sent in to the manufacturers who carry them till paid, and I presume if you followed these notes up you would find that very often they would be deposited with the banks as collateral for loans made to the manufacturers.

I'e often wished I could get a farmer to give me his note as willingly as he does to the implement man for a machine that will be worn out by the time the last payment on it falls due. A bill of lumber put into a barn will outlast a dozen threshing outfits, the way some men use, and fail to take care of them.

"Crazy" Ideas Have Been Adopted

We used to laugh at the "pops" for what we thought was their crazy scheme for storing their grain in government warehouses and issuing currency on the security. But it don't look so visionary now when it is proposed to do practically the same thing in our new Federal banking system. It won't be long now before we will be using currency whose value is based on commercial securities, and among them no doubt will be warehouse certificates, and thus it often is that what we deem "crazy" to-day turns out to be good judgment on the morrow. So it may be discovered that there is as much good reason for the proposition I have been talking about as there is in issuing currency on commercial securities. Time brings us round to the right angle of vision to see things as we don't view them now.

The One-Price-To-All System

I have made mention in the beginning of this article of the practical impossibility of carrying out the one-price-to-all system in the retail lumber business, and some of you may question my consistency, who remember that I made the assertion some time ago that if a certain matter is the right thing to do, the right way may be found to do it. I think you will agree with me that, as a general rule this is true. Laying aside the abstract principles of right, I want to ask, is it a right principle of business to attempt the giving of one price to all under the present competitive system of doing business? If it is practicable under this system, it is the right thing to do, and if it is impractical, it is not the right thing to do and no satisfactory way can be found to do it. I have, during my experience as a dealer, discussed the practical phase of this question with scores of lumber dealers and hard-headed business men in other retail lines of trade, and I have never found one yet who believed it practicable in a country town for any business that had competition. Even the banks don't treat everybody alike in this respect. One man is charged a lower rate of interest than another because of the difference in responsibility. The largest depositor receives favors that are not given to the man who has no deposit at all, and yet the same two men may be good citizens and equally responsible. It seems to be fundamental in human nature to want and seek to obtain an advantage not given to the "other fellow."

Take the farmer, for instance, who has 3,000 bushels of wheat to sell. He goes to the grain buyer and finds the market to be 80 cents, but because he has this quantity to sell, he thinks the buyer should give him more than he is giving to the man with the single load. In the abstract sense of right, he is not entitled to it, but in a business sense he is, and the grain buyer is warranted in giving him a raise, if the market prospects will allow it. The lumber dealer wants to buy twenty cars of lumber and he too expects to get some concessions in prices from what he would expect for a single car. If he can't get it from one manufacturer he will try another, and another till he does get it. The one who gives it, however, is discriminating against some other dealer whose order is on his desk for one or two car loads, and it is possible that this same dealer is a local competitor of the one who has bought the larger lot of stock, and who, if he knew it, would make a vigorous protest against the discrimination. The independent dealer operating a small yard, would like it very much if the mill men would adopt the one-price-to-all policy and stick to it, for then his big line yard competitor would have no advantage over him as far as buying in the market was concerned. No doubt the mill men would like it too, but they are practically compelled to discriminate in this way by the forces of competition, and if the principle of competition is a right one, then they have a right to conform to it, and to the best advantage of themselves, as lumber dealers. We favor the competitive system when we are buying, but we would rather not have it when we are selling the stock bought under it, and we wish that some power would compel that fool competitor to sell at the same prices that we do. This is the nub of the whole proposition. If we could do just as we pleased, and conditions were such that we had no competition, we could then adopt and enforce a rule of selling to everybody at the same list of prices, and treat saint and sinner alike in this respect. But unfortunately for our desires to put everyone on the same level in selling to them, there is no such spot in the retail lumber business on this planet.

Could Not Make It Work

For a number of years I ran the only yard in a town. When the local competitor was gone, I conceived the idea of equalizing prices to everybody as far as possible. I had the chance that I had often thought I would like to have of treating everybody alike in this respect. I was tired of "soaking" my friends to even up for what I lost to the close figurers, and I thought here was a chance to carry a good altruistic theory into effect. But, alas, for my good intentions. I found that I could not equalize unequal circumstances or conditions. They were dead set against me. I discovered before many months of my monopoly of the business there that forces were at work to subject me to outside competition, and compel me to discriminate in favor of the largest buyers. To give you one illustration of how this worked, there was a family living in town whose estate comprised some thirty or forty farms occupied mostly by renters. All the improvements on these farms were made by the family, requiring, as they did, a large amount of lumber and other material every year, which I only had a limited share of under the old regime. When, therefore, the change was made, they at first resented my monopoly of the yard business there, and bought some stuff at other towns, but this not proving very convenient to them, and at the same time, as annoying to me, they finally came and made the proposition that I furnish them all their material, at a reduced scale of prices on everything they bought. I tried to persuade them to discount their purchases on a percentage basis, couldn't get them to do it. So I finally made them out a price list on the staple items, which averaged about six or seven per cent. discount from yard prices. This, with a settlement every sixty days, proved a satisfactory deal all round, and was far more profitable to me than haing to figure on the bills for every building they put up, and in competition with dealers in the neighboring towns. I leave it to any experienced dealer if that was not the best solution of the problem. As it was, they would not accept the policy of the same price to everybody, because they considered the volume of their trade during the year justified their wanting a concession from the prices charged those who only bought a small amount compared with what they did.

I found further along in my experience with the one yard situation that people were more inquisitive about the prices I was charging them, than formerly, because they suspected I would be taking advantage of my position. This was favorable to quoting the same prices to all, but when the same people wanted any considerable amount of material for a building, they thought I ought to do better, and they did make me do better by going to the next town to get figures on their bills. So I found that I had to play the business game in the same old way, or let the business slip away from me.

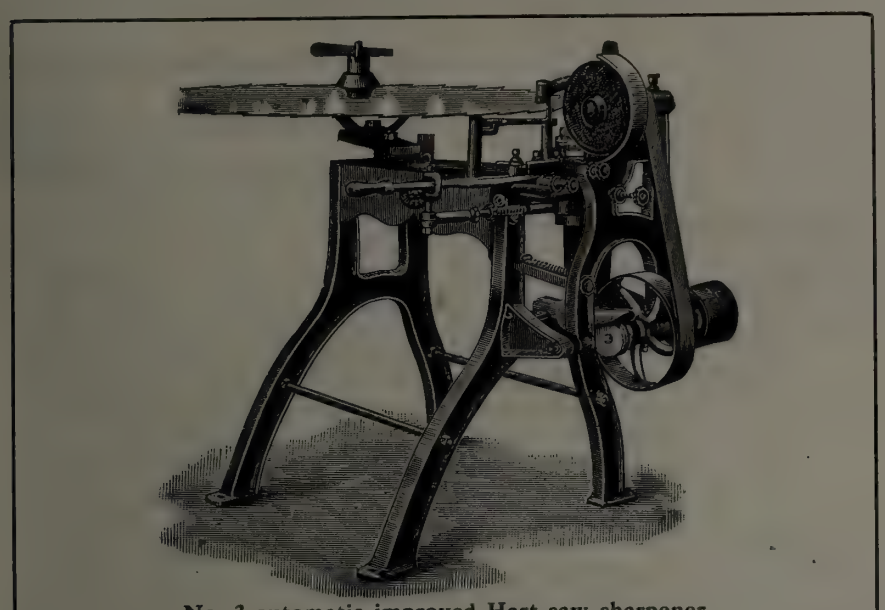
I am fully aware of the fact, and recognize the justice of the proposition, that a maintenance of the same prices to all means also equal rights to all and special privileges to none and, moreover, it is a kind of price fixing that really benefits the consuming public as a whole, but in order to carry it out in practice in the retail lumber business, the public must first be educated away from the idea of price competition and that special privileges are wrong in principle. Until this is done, the one-price-to-all policy will be for all practical purposes, an "irridescent dream" to the country retail yard dealer.

Get Trade By Good Service

There is one thing, though, that every dealer can do and equalize to everybody who trades with him. He can give the same service and treat all alike in this respect, even though he can't give the same prices to all alike. He not only can do this, but he should do it as a matter of the best business policy, and in carrying out this policy, it will have the effect of reducing the necessity of giving one man a price and a different one to another. A monopolizer of trade is one who gives the most and the best service. It may be a little harder to do it, but a dealer can also treat everyone alike in his credit service. There is not the inherent difficulty in doing this that there is to the equal price question because he can govern his credits more easily than to keep people from figuring to get low prices. When a man wants you to give him credit, he is asking of you a favor and you are in the position of grantor and can dictate your own terms. Therefore, there is nothing to hinder you from adopting a policy of giving the same terms to all alike, and serve all alike in requiring a prompt settlement of accounts. This is service you can give, and govern at the same time. In some things you can't treat people all alike because all people are not alike.—C. H. Ketridge in the Mississippi Valley Lumberman.

The No. 3 Automatic Improved Hart Saw Sharpener

The accompanying illustration shows the No. 3 automatic improved Hart saw sharpener, manufactured by the Canadian Hart Wheels, Limited, Hamilton, Ont. These machines not only sharpen saw teeth perfectly in less than one-third of the time required for filing by hand, but they keep them gummed and uniform in size and shape. No files are required where the Hart sharpeners are used, except for fine teeth. The work is all done with precision. The saws are kept perfectly round and the teeth project the same distance from the centre. By the use of these machines saws can be kept in better order in less than one-half the time required for filing by hand. They



No. 3 automatic improved Hart saw sharpener.

save power, because, where they are used, saws are kept in good order always, and every tooth does its share of the work. They effect a saving in saws because the saws are kept round and true. The saws do not get dull quickly and require very little grinding to sharpen.

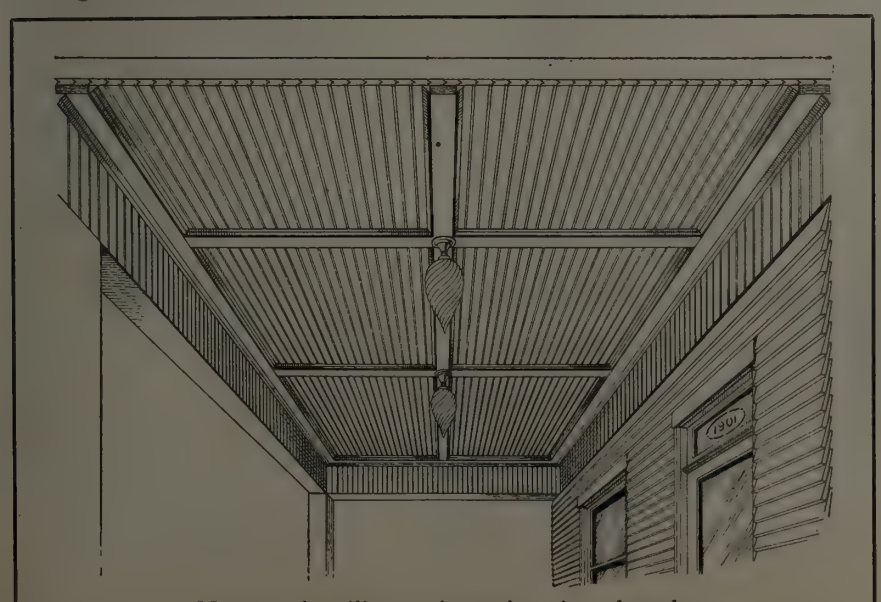
The improved Hart saw sharpeners are exceedingly simple. They do not readily get out of order, and are so provided with stops that exact work is done without any trouble. They are very easily and quickly adjusted to any sized saws whether rip or cross-cut.

The company ship these sharpeners complete with tight and loose pulleys, belt and three emery wheels, packed and crated in their own tables or stands.

The No. 3 automatic is for saws 8 to 72 ins. in diameter. Its capacity is two teeth per inch up to 3½-in. pitch of teeth. Circular cross-cut saws can be sharpened on this machine also, but not automatically. The emery wheels are 8 ins. in diameter with ¾-in. hole. The approximate weight of the machine is 450 lbs.

Short Lengths Available for Porch Ceilings

The accompanying illustration shows a new design for porch ceiling, which has been worked out by the Arkansas Soft Pine Association. The main idea of this design is to encourage the use of short length material. The suggestion should prove of considerable interest to retail lumbermen. The idea simply is to use short length ceiling stock and block the surface into panels by using short length for the cross beams and short length mouldings. It will be seen from the illustration that the design makes an attractive porch ceiling and that retail lumbermen should be able to turn over annually a fair amount of stock for this purpose, thus enabling them to sell at a profit a class of lumber which is frequently a source, either of worry or loss.



New porch ceiling esign using short lengths.

Hints on Leather Belt Driving

Belts stuffed with tanners' dubbin on the flesh side will become as smooth all over as the hair side, and their life will be much increased. Three times the adhesiveness is gained by softness and pliableness in leather belts over those which are dry.

Long belts are preferable to short ones, but care must be taken that the length be not too great.

Horizontal, inclined, and long belts give a much better effect than vertical and short ones, and those that have the driving side below than otherwise.

Belts of course, loose leather will do better service in dry, warm places. For wet or moist situations the finest and firmest leather should be used.

Experience says the hair side of a belt put next to the pulley will drive thirty-four per cent. more than the flesh side.

The strongest part of belt leather is near the flesh side, about one-third the way through from that side.

Leather belts must be well protected against water, and even moisture.

Short belts require to be tighter than long ones. A long belt, working horizontally, increases the tension by its own weight, acting in the curve formed between the pulleys.

Sufficient care is seldom taken to let belts run free and easy, and it has been one of the greatest errors, more or less prevalent in all large factories, to run the belts so tense as greatly to injure them and rapidly increase the wear of the bearings.

In many instances the tearing out of lace-holes is often unjustly attributed to poor belting, when in reality the fault lies in having a belt too short, and trying to force it together by lacing; and the more the leather has been stretched while being manufactured, the more liable it is to be complained of.

To obtain the greatest amount of power from belts, the pulleys should be covered with leather; this will allow the belts to be run very slack, and give twenty-five per cent. more durability.

A careful attendant will make a belt last five years which, if neglected, might not last one.

It has been found in practice that belts must not run faster than 30 ft. per second nor have a tension of above 300 pounds per square inch of section.

The friction of a belt is double on wood to what it is on cast iron.

Long belts are less liable to slip than short ones.

The softer woods are better for pulleys than the harder kinds, but pear wood and nut tree are best for cord-wheels. Grease must not be put on wooden wheels on which belts run.

Tightness by tightening pulleys must be applied to the slack side of belts.

The belts should be cut from the centre of the skin.

Thickness of belt does not always give strength.

If too great a distance is attempted, the weight of the belt will produce a very heavy "sag," drawing so hard on the shaft as to produce great friction in the bearings, while at the same time the belt will have an unsteady flapping motion, which will destroy both the belt and the machinery.

The connected shafts should never, if it can be avoided, be placed one directly over the other, as in each case the belt must be kept very tight to do the work.

It is also desirable to locate the shafting and machinery, so that belts shall run off from each other in opposite directions, as this arrangement will relieve the bearings from the friction that would result were the belts all to pull one way on the shaft.

If possible, the machinery should be so planned that the direction of the belt motion shall be from the top of the driving pulley.

In punching a belt for lacing, it is desirable to use an oval punch, the longer diameter of the punch being parallel with the belt, so as to cut out as little of the effective section of the leather as possible.

Begin to lace in the centre of the belt and take much care to keep the ends exactly in line and to lace both sides with equal tightness. The lacing should not be crossed on the side of the belt that runs next to the pulley.

Never add to the work of the belt so much as to overload it.

A good leather belt, one-inch wide, has sufficient strength to lift 1,000 lbs.—Timber Trades Journal.

The Jeffrey Manufacturing Company, Montreal, have removed their office to 42[illegible] Power Building. The warehouse will remain at 55 Cote Street.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Lumber Wanted

Hemlock running chiefly 14 ft. and 16 ft. lengths, 1-in. Spruce, Basswood, Birch; also Cedar Posts. Send detailed list giving lowest wholesale prices. Address Box 85, Canada Lumberman, Toronto. 21-24

Wanted To Buy—1000 Birch Logs

fresh, clean, straight and sound, 14-in. and up diameter at small end, 8 ft. to 16 ft. long. Delivery to commence as soon as possible. Terms: 75 per cent. cash when alongside track at railway station, balance when loaded on cars. Write P. O. Box No. 1595, Montreal, stating best price. t.f.

For Sale–Lumber

For Sale

400 Spruce Spiles, 60 ft. long, 7 in. tops. Also any quantity Spiles 35 to 50 ft. long. Prompt shipment.

The Northern Lumber Mills, Limited,
21-t.f. North Cobalt, Ont.

For Sale

Two cars of Poplar, Balm of Gilead and other softwoods. Three miles west of Galt, C. P. R. or G. T. R. Railroads. Write Uriah Snyder, New Dundee P. O., Ont. 21-22

For Sale—White Pine Bevel Siding

Either in Idaho White Pine, Silver White Pine or Michigan White Pine. All grades at prices so low that you will be sure to buy. Write us.

American Lumber and Mfg. Company,
22-1 Pittsburgh, Pa.

For Sale

St. Frances Valley, Arkansas, Band Sawed Red Gum, dry, choice stock, all grades. Inspection guaranteed under National Rules.

The Crittenden Lumber Company,
19-22 Crittenden, Arkansas, U.S.A.

Dimension Timbers

50 pieces Red Pine, 6 x 10 x 18, $30.00.
20 pieces Red Pine, 8 x 10 x 18, $30.00.
10 pieces Red Pine, 8 x 12 x 20, $32.00.
15 pieces Red Pine, 10 x 12 x 16, $32.00.
30 pieces Cedar, 8 x 8 x 12, $19.00.
30 pieces Cedar, 9 x 9 x 12, $19.00.
20 pieces Cedar, 10 x 10 x 12, $20.00.

Send for full list. Spruce and Yellow Pine also.

South Shore Lumber Company, Limited,
21-24 St. Lambert, P.Q.

For Sale

One car 4/4 in., 2 to 4 in. Clear Quartered White Oak Strips.
One car 4/4 in., 4 to 5½ in. Clear Quartered White Oak Strips.
Will make attractive prices to move this.

Duhlmeier Bros., Cincinnati, O., U.S.A.
21-22

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

White Pine

Have on Georgian Bay, in dry, Good White Pine (as graded in mill):—
20,000 ft. 1 x 4 and up, 10/16 ft., say 20 per cent. 8-in. and up.
54,000 ft. 1¼ x 6 and up, 10/16 ft., say 50 per cent. 8-in. and up.
20,000 ft. 1½ x 4 and up, 10/16 ft., say 65 per cent. 8-in. and up.
For prompt shipment, will name prices about 1/3 off.

Apply, The Rideau Lumber Company, Ltd., Ottawa, Ont. 21-22

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¼ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale–Machinery

For Sale

28 36-ft. 60,000 lbs. flat cars.
1 55 ton Locomotive.
1 40 ton Dinkey.
15 25 ton Dinkies.
In first class order, for immediate delivery.

W. FRASER,
21-24 83 Craig St. West, Montreal, Que.

Second Hand Machinery

150 to 175 h.p. Corliss Engine, 16-in. x 36-in., new two years ago.
75 to 100 h.p. Brown Automatic, 13-in. x 30-in., in excellent condition.
500 to 750 h.p. Buckeye; a good sawmill engine.
Boilers, 72-in. x 18-ft. and 54-in. x 14-ft.

THOMAS HOBBS,
Mail Building,
7-t.f. Toronto, Ont.

Special Woodstock Machines

Latest Types—Like New—Guaranteed. Some examples:
2—12-in. Defiance Patent Automatic Benders.
1—No. 2 Defiance Automatic Rim Strip Equalizer.
1—42-in. Defiance Combined Handle and Spoke Lathe.
2—48-in. Defiance Neckyoke and Singletree Lathes.
3—32-in. Defiance Automatic Spoke Lathes.
2—48-in. Wapakoneta Automatic Spoke Lathes.
2—36-in. Fay & Egan Automatic Spoke Lathes.
1—No. 1 Defiance 18-in. Belt Sander.
1—Defiance Auto Spoke Throat Polisher.
1—18-in. Empire Belt Sander.
5—Sinker-Davis Hoosier Self-feed Rip Saws.
1—No. 110 Fay & Egan Self-feed Rip Saw.
1—No. 2 American Self-feed Rip Saw.
1—30" Whitney Double Surfacer.
1—24-in. Fay & Egan No. 140 Double Surfacer.

Complete list the seventy odd machines ready.

WAYNE MACHINERY CO.,
Fort Wayne, Ind., U. S. A.

We've seven hundred machines in stock at Fort Wayne. Our Wayne list mailed to anyone interested.

For Sale

Saw mill, 8 ft. Allis Band, 6 ft. Allis Resaw, Clark Carriage, Prescott Set. 12 in. Steam Feed, Edger, Boilers, Engines, Dynamo. Complete mill ready to run.
14 Russell Log Cars, 60,000 capacity, 26-in. wheels, air brakes, 12-ft. bolsters.
Eight miles of 45-lb. Steel Relaying Rails, excellent condition. Wheel Press, Lathe, Planer, Crucible for Brass, Power Drill.
All of the above equipment is at Marlinton, W.Va.

Campbell Lumber Company,
20-23 Marlinton, W. Va., U.S.A.

Business Chances

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra.
Minimum charge 25 cents

WANTED—Position as engineer. Can handle A.C. work. References. R. E. Keech, 412 Pavone Street, Benton Harbor, Mich., U.S.A. 22-1

Position wanted as inspector of lumber. Twenty-five years' experience. Best of references. Any kind of lumber. Have some capital. Will not work for small firm. Address J. Golden, Rutter, Ont. 20-22

Position wanted as manager of retail woodworking business. Thoroughly experienced in lumber factory and office routine. Expert organizer and capable of producing maximum results. Twenty years with one large Ontario company. At present engaged. Box 88, Canada Lumberman, Toronto. 21-23

POSITION WANTED by stenographer and bookkeeper. Young man, stenographer and bookkeeper, desires position with lumber company, with a chance of advancement. One year's business experience, and best of references. Address Lock Box 42, Highland Park Station, Des Moines, Iowa, U.S.A. 22-1

I want a position as superintendent of mill or woods, or both. Thoroughly understand the wholesale and retail business. I have built, owned and operated a large mill for ten years, and have a sound knowledge of all machinery. Worked up a large quantity of my lumber in manuafctured goods.

ROBERT WELLS,
277 Albert Street,
22 Ottawa, Ont.

WANTED—Position by young married man who has a general knowledge of the lumber business and who is particularly adapted for the sash and door business. Has had practically four years' experience as buyer. Willing to go almost anywhere and to consider any proposition. Would go to lumber camp or work in mill. Firms with interests in South America, desiring the services of a general man, please consider this. Box 100, Canada Lumberman, Toronto. 22-24

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

Hardwood Salesman Wanted

Wanted a high grade hardwood salesman who is thoroughly acquainted with the furniture, piano and interior finish trade of Canada. We can offer such a man an exclusive territory in a well established line. Send full particulars and references in first letter or application will not be considered. Address Box 99, Canada Lumberman, 347 Adelande Street West, Toronto, Ont. 22-23

WANTED—A reliable bushranger, with knowledge of bush work, log driving and river repairs. Able to speak French and English. Must be sober. Trois Pistoles Pulp & Lumber Company, River Trois Pistoles, P.Q. 22

Miscellaneous

For Sale

Telephone Poles. P. O. Box 213, Almonte, Ont. 22

Wanted

Second-hand medium size log haul up chain and refuse carrier. Box 101, Canada Lumberman, Toronto. 22-23

Wanted

Prices on block of 500 acres of Beech, Birch or Maple for wooden work. Same must be located on or near C. P. R. Address B. M. W., care Canada Lumberman, Toronto. 22

Electric Lighting Plant

wanted, without power, direct current, capable of supplying 250 to 300 16 c.p. lamps. Must be in first class condition. Name lowest cash price. Correspond with Clarke Bros., Bear River, N.S. 21-24

Sawing Contract Wanted

Want to secure contract for the sawing of 1,000,000 to 5,000,000 feet of logs. Have No. 1 portable sawmill, fully equipped. Location immaterial.

HUGH BAIRD & COMPANY,
22-1 Markdale, Ont.

Wanted

Second-hand patent snow plows, also boom chains. Plows are for use on road where sleighs 6 ft. wide from outside to outside are run. Address The Schroeder Mills and Timber Company, Salines, Ont. 21-22

Sales Agents Wanted

Large United States chain manufacturers now represented in Quebec Province want to secure sales agents in Ontario, Western Canada and Maritime Provinces for all kinds of logging chain, dredging chain, etc. Apply Box 80, Canada Lumberman, Toronto. 20-22

Sales Engineers Wanted

A large firm specializing in the manufacture of motors of all classes desires to secure sales engineers in various parts of Canada. Firms who can carry a stock of motors are preferred. Write stating the territory that you can cover. Box 96, Canada Lumberman, Toronto. 21-24

For Sale

Fifty good lumber horses from 1400 to 1700 pounds. Also harness, sleighs, water tanks, snow plows, blankets, chains, camp stoves and all camp supplies. Can all be seen at Berriedale, near Burks Falls, Ont.

Highland Lumber Company, Ltd.,
20-23 Berriedale, Ont.

Agents Wanted

Large firm making low voltage transformers and electrical measuring instruments wants sales agents for Canada. These transformers are for sign lighting, bell ringing and toy requirements. The electrical measuring instruments include a complete line of switchboard and portable ammeters and voltmeters. All agents to work on a commission basis. Write, stating what territory you can handle, to Box 93, Canada Lumberman, Toronto. 21-23

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Sales Agents Wanted

Large firm manufacturing a complete line of electric centrifugal pumps, automatic electric compression water systems, electrically-driven multi-stage turbine pumps, electrically-driven double acting pumps and a number of other lines, wants sales agents for various parts of Canada. Write, stating what territory you can handle, to Box 94, Canada Lumberman, Toronto. 21-2:

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Saw Mill Machinery For Sale

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Wood Used for Indian Sleepers

Practically the only imports of wood into Burma are pine shooks for the manufacture of candle boxes, the United Kingdom and Japan supplying the greater share. Burma exports a large amount of teak wood, which is also used locally for building operations. Railway sleepers are manufactured from the locally grown ironwood trees or pyinkado (Xylia dolagriformis). This is a large deciduous tree, with a straight, though at times fluted, stem. In the deciduous forests of Burma it is very common and grows to a large size, boles forty feet long and eight feet in girth being not uncommon.

The heartwood is dark reddish-brown; annual rings darker, but not distinct; very hard and difficutl to saw, especially the seasoned timber; close-grained and somewhat twisted, cutting to a smooth, shiny surface. Recent experiments by the forest department gave pyinkado a breaking strength of 6.07 tons per square inch. The weight is said to be sixty pounds to the cubic foot.

The primary use to which the timber is put is for sleepers, and owing to its strength, hardness, and durability it is admirably suited for that purpose. It is extensively used for house building in the form of posts, beams, and scantlings; in bridge construction; for buffers of railway tracks; for telegraph poles; for boats, dugouts, and canoes; for shipbuilding; for agricultural implements, such as plows and harrows; for cart poles and axle cases, and for paving blocks.

The chief conservator for forests, Burma, computed the possible outturn of sleepers, within reach of the railway, to be 646,800 sleepers available annually. He estimated that there are 5,390,000 trees over 7 feet 6 inches in girth. The above figures are, as stated, for trees to be found within fairly easy reach of the railway and by no means represent the possible outturn for the whole of Burma. Scantlings sell at $26 per ton of approximately 50 cubic feet and sleepers at 57 cents each.

Menus for Logging Camps

R. S. Kellogg, secretary of the Northern Hemlock & Hardwood Manufacturers' Association, has prepared an interesting standardized menu for logging camps. At the meeting of logging superintendents held in Green Bay last August, a committee, of which Mr. Kellogg was a member and J. Quinlan chairman, was appointed to draw up a standard bill of fare for use in logging camps and Mr. Kellogg has just completed the work.

From statistics and information gathered from many sources, including the army and navy reports of the United States Government and reports from the University of Wisconsin, Mr. Kellogg has compiled menus for a month. The menu is about a yard long and a foot wide and contains in tabular form, menus for thirty breakfasts, thirty dinners and thirty suppers. Mr. Kellogg is preparing a lengthy report to accompany the menus and will present it at the next meeting of the association, which will be held in Milwaukee the latter part of this month. It is expected that the menus will be issued in pamphlet form for the use of lumbermen.

A sample breakfast from this unique collection of gastronomical delights is as follows: Oatmeal, pancakes, fried potatoes, beefsteak, bread and butter, coffee, cookies, doughnuts.

But after the lumberman has worked for about six hours in the open air of the woods, he is ready to tackle a dinner something like this: Pea soup, pot roast of beef and gravy, boiled potatoes, macaroni and cheese, beans, bread and butter, tea, apricot pie.

Then the lumberjack wields an axe for another six hours and is prepared to sit down to a table loaded in this manner: Tomato soup, carrots, baked potatoes, fresh fish, prunes, beans, bread and butter, tea, cookies, cake.

Douglas Fir Gets the Preference

Classifying Douglas fir as the finest American wood for all purposes, Yale University has let the contract to northwestern mills for the lumber to be used in the construction of seats in its big stdium now nearing completion at New Haven, Conn. The order calls for 200,000 feet of No. 2 clear and better to be cut of Douglas fir exclusively. The size of the order and the high price paid are not regarded by lumbermen as of as great importance as is the fact that the lumber is to be taken from the northwestern mills. Every practical wood grown in the United States was tested by the university engineers and despite the fact that the distance from the Pacific northwest is greater than from any other point, and the freight higher, the order was placed for fir.

One of the most practical fire retardent methods that has been adopted in this country is that of fireproofing doors and interior trim by facing them with veneer and putting a corss-banding of asbestos between the veneer and the main core body, says T. C. James, in the Woodworker. This serves the purpose of checking a fire, which may destroy the outer veneer face and ruin the wood work generally, but it would not gain much headway, because the asbestos will check it pretty much as a tin covering on a wood door will prevent it burning through. A process for applying veneer in this way has been patented in this country, and the idea is making considerable headway, especially for door work for large offiffice and public buildings.

Reductions are announced by steamship companies in the rate from the British Columbia coast to the United Kingdom. When the war broke out, the rates were materially increased. Protest was made by British Columbia lumbermen, and it was pointed out that the 2 per cent. insurance offered by the British Government would increase the carrying charge only about $1 per thousand, but several times this amount was charged by the steamship companies. It affected the trade greatly, and the high cost of transportation prevented a contract being secured for a cargo of 3,500,000 feet for South Africa. The reduction of 20 per cent. will help trade with the United Kingdom, where there are opportunities just now in view of the Baltic countries not being so accessible as before the war.

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Review of Current Trade Conditions

Ontario

Wholesale lumber travellers all agree that the best feature of the trade today is that of the smaller towns, where stocks are moving fairly well, though by no means as actively as at normal times. Tihs movement is generally supposed to be the result of the farmers spending some of the money which they have recently been fortunate enough to take in from the sale of their excellent crops. In the large centres, there is little or nothing to be reported in the way of news, as trade is very quiet. The building trade has fallen off greatly. Most of the demand in the large cities is for consuming manufacturers. The box trade continues fairly active. Wholesalers are taking a keen interest in the outlook for woods operations this winter. Many of them have already made up their minds that stocks will be exceptionally short next spring. There is no question that the large lumber producing districts in Ontario will have a greatly reduced output this winter. This is estimated all the way from 25 to 50 per cent., while in some districts reports of even greater curtailment are given out. Considering the very sane attitude taken towards business activity by nearly all Canadian manufacturers, and the tact that several important lines of demand are developing out of the war, wholesalers are inclined to expect increased activity in the consumption next spring. No one ventures to say to what extent the demand will increase, so much depending upon the war situation, but there is a really definite and widespread feeling that the most noticeable characteristics of next spring's and summer's trade will be a fairly good, if not a quite active demand, accompanied by considerably reduced stocks of every description.

A prominent firm of wholesale lumber dealers in Toronto reports that it is doing a very satisfactory trade, considering the general trade situation. At present, this firm is within 15 per cent. of its normal volume of trade as compared with last year. In accounting for this it explains that much of its trade is with the large contracting companies whose trade has kept up much more satisfactorily than the trade of the small retail dealers.

Hardwood manufacturers and wholesalers in Ontario and Quebec are experiencing a heavy demand for thick birch, which is being sold to saddle makers for saddle trees. This demand has developed out of the requirements of the English war office, which has sent orders to all Canadian saddle manufacturers and many large United States manufacturers. Birch seems to be the only suitable wood for this purpose, and practically all of it is coming from Ontario and Quebec.

Eastern Canada

There has not been much change in the lumber trade of New Brunswick during the past month. The local demand has come practically to a standstill. The English deal market has improved considerably and some important mills which formerly cut for United States market are now turning their logs into product for the English market. The United States market has been very dull, although a slight improvement is reported during the past week or two. Practically all the companies operating in the woods on the Upper St. John will reduce their cut this winter. On both the Upper and Lower St. John, the total will probably be about 100,000,000 feet. Lath are quiet and easier and stocks are plentiful. Low grade stocks are large and stocks of merchantable spruce boards are heavy, although, if market conditions should improve there would not be much of an excess. The demand for shingles is weak and stocks are large. Box shooks are very dull, as the fish catch has been light.

Although the volume of trade at Montreal has dropped greatly as compared with previous years at this time of year, the situation at present is looked upon by many wholesale lumber dealers as containing fair promise for good trade conditions next spring. Stocks at the mills are low in most cases and any improvement in the demand will be likely to stiffen prices. Much the same set of conditions is reported from Boston, where business in general is slow, but lumbermen are hopeful as to the near future. There is already an improvement in the financial situation at Boston. In Maine, the lumber cut has been curtailed and the fall in prices has stopped, particularly in regard to spruce. A prominent Boston firm report a general intention among the mills to make a small cut next year. From this they expect improved trade conditions to develop. At present, however, all reports agree as to the prevalence of a very quiet trade throughout Boston, New York and the eastern States generally.

Montreal reports a fairly steady trade with New York. Canal shipments are expected to end about November 20th. Shipments to Great Britain are almost nil, on account of scarcity of vessels, and the large amount of grain and flour being forwarded to England. The customary rush of lumber shipments, previous to the close of navigation, has not appeared. Three Quebec and New Brunswick firms are reported to have sold their new cut of English spruce deals at a slight advance.

Ottawa Valley mills have shut down in many cases, and a shortage in the Ottawa Valley cut is certain. Recent estimates place the reduction at anywhere from 25 to 50 per cent., which will involve a shortage of 100,000,000 feet at least, and probably more.

The demand for eastern spruce at Boston is growing more encouraging every day. No general improvement is yet reported, but the increase in the demand for export, and the greater building activity which has been reported in New England, taken together with the fact that retail stocks are unusually low, are leading to a belief that improvement is pretty certain. The demand for eastern spruce at New York is still quiet. Hemlock continues dull both at New York and Boston. The demand for shingles at Boston is quiet. White cedar extras have been offered at $3.40, while choice lots will sometimes bring 5c to 10c more. Choice makes of red cedar extras are bringing $3.35 to $3.50. A few Washington mills have quoted $3.20 to their agents at Boston. Improvement is expected in the lath trade. A few manufacturers have advanced their prices on 1⅝-in. to $4.15.

Great Britain

The latest reports received from Great Britain state that spot prices for wood goods are very firm, as a result of the continued absence of receipts from the Baltic, Finland, the White Sea, Sweden, Russia, etc. In the face of this, government orders have been very large and some well informed timber merchants state that they will not be surprised if some dealers go to the extent of seeking to advance prices greatly during the abnormal market conditions which are likely to prevail. Other merchants are urging that this is not a time for taking advantage of such a situation and there is a general inclination to follow this principle as firmly as possible.

Fairly good business is reported in the spot market at London. Consumers who had been holding back for a time are coming into the market again to satisfy their immediate requirements. Deliveries at London docks for the week ending October 17th amounted to 13,005 standards as compared with 7,624 standards in the corresponding week of 1913. At Foy, Morgan & Company's recent auction sale 3 x 11 2nd Quebec spruce was sold at £15 10s; 3 x 10 1st at £16; 3 x 9 2nds at £15 and 3 x 8 3rds at £13.

At Liverpool, further improvement in the trade is reported, especially in connection with whitewoods, such as spruce deals, which are required for the winter camp at the seat of war. Liverpool merchants, according to latest advices, did not expect very extensive receipts from New Brunswick or Miramichi, as stocks were reported very light at manufacturing points, and most of them were already placed. Reports from the same source stated that prices were advancing, and higher prices were being paid for future arrivals. Receipts of pine deals at Liverpool have been greatly interfered with lately by the large number of vessels taken off the Atlantic route for the movement of troops. At Manchester, the trade is a little quieter, although indications are that some lines will advance in price still further. Rumors are current of some very large requirements of spruce by the Government for use on the continent.

At Glasgow a slight improvement developed in the market recently and is being maintained. Buyers are showing a little more disposition to increase their stocks, which is a healthy sign in regard to the immediate future. The bulk of the business being carried on today has been a direct result of the war. The demand from the usual sources of everyday business is very restricted, but is showing signs of improvement. Spruce continues active at particularly firm prices, which show a tendency to advance.

United States

Several reports have been received from United States points which suggest the possibility of an improvement in trade conditions, and even a comparatively early return to general trade activity. One of the most important factors in bringing about such a revival, if it comes to pass, will be the enormous quantities of material which are being manufactured on rush orders from the Government of Great Britain for a great variety of supplies and equipment rendered necessary by the war in Europe. The orders which have been received in the United States up to date include great amounts of grain and food stuffs, many thousands of horses, motor trucks and heavy automobiles for army use, saddles and harness in such quantities as have never

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been ordered before, blankets and hosiery and, in fact, a variety and quantity of material so great as to have an almost immediate effect upon the trade situation throughout the United States.

The benefit which will be felt in the lumber trade, from these developments will be both direct and indirect. The indirect benefits will be the result of the growth of a more optimistic feeling among manufacturers and merchants in general, accompanied by the freer circulation of money following payments for these goods. The direct benefits will be the consumption of quite extensive amounts of lumber for boxing and crating material for shipping these goods to foreign countries. Shoes, clothing, blankets, saddlery, harness, machinery, etc., must all be safely and strongly packed or crated for shipment. Those who are in touch with the box and crate producing industry state that this will mean a greater manufacture of such articles than has ever been known before. In addition to this, many of the goods ordered will require extensive amounts of lumber in their production. Saddles, for instance, will consume great quantities of thick birch. Trucks, motors, etc., will consume lumber in large amounts. Another benefit which is already making itself felt is the opening of foreign lumber markets which United States lumber firms had formerly found very difficult of access. These markets are now deprived of their former supplies and will look to both United States and Canada for lumber stocks. A special instance of this situation is the English lumber market, which formerly imported great quantities of lumber from Russia. According to the British Board of Trade figures for September, 1914, only 9,740 loads of hewn timber were imported from Russia, whereas during September, 1913, the total was 66,257 loads. The reason for greater confidence is not only found in the increased demand growing out of the war, but manufacturers at many points in the United States, in the north, south, east and west report many encouraging orders for large quantities of lumber. Among these are such interesting orders as several millions of railroad ties for England and France; 7,000,000 cross ties for the Interborough Company of New York; large quantities of piling and ditching material required at Colon, Panama; 25,000,000 feet of spruce ordered by English buyers; an increasing demand for box lumber from factories; orders from England for large amounts of picture mouldings, and an order from New York for 10,000,000 Washington shingles.

A firm market for northern pine is reported at Chicago, although the actual quantity of stock changing hands is small. There is a steady consumption of low grade stock for box material. White pine continues dull at New York, with retail yards running as low in assortments as possible. The demand for northern pine at Buffalo is quiet. At North Tonawanda it is expected that the amount of stock on hand for the winter will be considerably greater than last year. During the past fortnight the trade in northern pine at North Tonawanda has shown some improvement and better business is expected shortly.

An improved feeling is reported among hardwood men at Cincinnati. A revival of business is noticeable which is expected to result in a good demand during the next month or two. Small quantities of hardwoods are moving right along. At Buffalo, very little business is reported in any of the hardwoods. Plain oak is in better demand than the other hardwoods, but is weaker in price than it was a month ago. The market for southern pine at Buffalo is still quiet.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John River Cut Will Show Large Reduction

St. John, N.B., November 9 (Special to the Canada Lumbreman): Very few changes have taken place in the local lumber industry during the past month. The demand for stock for building purposes in and about the city is almost at a standstill, about the only trade being that of the fittings for the steamers which are transporing horses to England for use in the war. The contract for fitting up the two steamers now here has been let to A. R. C. Clark of this city and totals about $15,000 per steamer. Very little house building is being done, as all houses started in the spring are now about completed, and no new work is being started. Therefore the outlook for the building trades for the winter months is discouraging, but it is to be hoped that spring will show a marked change in this line of trade. Of course everything hinges upon the condition of things in the war zone.

The English deal market has shown considerable improvement during the past month. Any persons who had fall deals to sell could get probably $18 per M. for the ordinary specification, but there are no deals for sale here that we know of. Some of the mills have already closed down for the season, viz., J. E. Moore, South Bay; Randolph & Baker; F. E. Sayre & Company; Miller, Moore & Company, and Chas. Miller. These mills will remain closed until next spring. All the other mills sawing here are manufacturing deals for the English market. All American logs which have been cut on the American side of the St. John River, and which as a rule go back into United States after being sawn, are being cut into English deals for England, the prices being better there than in the United States. These logs cut out a very desirable specification both in widths and lengths. Messrs. Stetson, Cutler & Company who always put the product of American logs into the United States are now sawing for the English market. The price for the product (for the stock) from these logs is from $20 to $21 per M. superficial feet right through, f.o.b. sellers' mills.

A good many of the Maine mills at Bangor and elsewhere are sawing for the English market, rather than trying to sell in the United States, where practically no price which would leave a profit can be obtained. What effect this turning of spruce from its natural market to a foreign one will have upon the United States market remains to be seen, but it would not be unreasonable to believe that prices in the American market will increase. We understood that during the last few days some improvement has taken place in the American market, but it is only slight and any undue movement of stock towards this market would probably upset it at once.

Nearly all the concerns which will cut logs during the coming winter on the upper St. John have started work. In some cases the cut will be very much reduced. It is said that Messrs. Stetson, Cutler & Company will not make more than about half of last year's cut, as they have on hand at present enough logs to run them well along to June or July of next season. Probably their total cut this year will not run over sixteen or seventeen million. Randolph & Baker will probably cut 12 to 15 million on Big Black, Green and Grand Rivers. Murray and Gregory will probably get from 12 to 15 million; J. E. Moore & Company and their subsidiary concerns, ten million or more. It is not known just what the total cut for the coming winter will be, as a lot depends on the outlook for next year, also how the fall and winter weather sets in, and also upon help, which at present is quite plentiful, but of poor quality. Probably the cut from the upper waters of the St. John will not be over 60 million feet for next year. Of course, beside this, many logs will be cut on the lower reaches of the river. Taking in everything probably 100 million would not be an over estimation. Prices for logs are about the same as during the past year, viz., $14 to $14.50 for up river logs, with excess battens at ¾ price. Prices for the logs from lower sections of the river are about $14 for logs; two-thirds price for battens and from $7.50 to $8 for fir and small spruce, delivered at St. John. Of course, should the market show any tendency to fall, the price and demand for logs will also fall and operators will shorten up their woods cut. No one can tell just what way to turn this year. It is simply go ahead and see, as one goes along, how the market turns. This is positively not a year to speculate.

Prices for laths have fallen to about $2 on the wharves here, and there are few buyers. This is from $1 to $1.50 per M. less than at this time last year. Laths are being piled up by mills rather than sacrifice them.

The quantity of low grade stocks on hand is large enough, and merchantable spruce boards are a drug on the market. Of course, there is no heavy excess, and if the foreign markets keep up all this stock will be worked off by spring, especially as now about all the mills are shutting down a month or more earlier than usual.

Shingles are in very poor demand and stocks are very heavy, but not so bad here as on the north shore of the province. It is to be hoped that something may happen to restore the shingle industry, which is certainly in a bad state.

The box shook trade is very dull. Very few fish have been taken all along the coast and what were caught were largely sardines and went to canning factories.

St. John has lost one of its most esteemed lumber manufacturers in the death of Mr. Chas. Miller, which took place very suddenly on November 4th, Mr. Miller had been a life-long manufacturer of both lumber and lime, and was a man endowed wtih more than the ordinary business ability. His colleagues in the lumber trade here will undoubtedly miss his able and kindly advice.

Montreal Wholesalers Hopeful of Improvement

Montreal, November 9, (Special to the Canada Lumberman):— Everything considered, business is fairly satisfactory. Naturally, at this time of the year, orders drop off, and the war conditions have helped to restrict trade. But, as one wholesaler put it, things might

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be a great deal worse. While there is much room for improvement, the market is not nearly as bad as some pessimists are inclined to picture it. The most serious feature is the continued falling off in the building permits. For last month the total was $701,510 (in which is included one building of $165,000), a decline of $1,887,465. Up to the end of October the total for the year shows a loss of $5,043,920, these figures excluding the harbour work, which is done without a permit. Even with this included, there is a decrease for the ten months of $1,593,920.

Many wholesalers are very sanguine as to next season's prospects. Stocks at the mills are stated to be very low, and if the European situation takes a decided turn, we may reasonably expect that Canada will benefit materially from the favorable position. A heavy domestic demand for lumber will result, and Europe will also require large supplies.

A steady business has been done with New York. The last canal boats will leave here about the 20th. Freights have not advanced this season.

The shipment of lumber to the United Kingdom is practically at a standstill. This is due to the great scarcity of steamers and the enormous shipments of grain and flour to the other side, which have precedence over lumber. In the ordinary way, lumber firms at this time of the year are exceptionally busy rushing shipments before the close of navigation, but this season they have been seriously handicapped by the conveyance of troops and the call for grain. Three mills in Quebec and New Brunswick have sold their new cut of spruce deals for the English market at a slight advance over previous prices.

Ottawa Mills Closed by Low Water

Ottawa, November 9; (Special to the Canada Lumberman):—There is only one mill operating in the Ottawa Valley at present, that of the W. C. Edwards Company. The low water in the Ottawa has caused all the other mills to close down. Gilmour and Hughson shut down their plant last week, throwing 150 men out of work. The serious effect the insufficient water has had on this year's lumber cut will be shown when the figures from each mill in this district are totalled early next January. It is estimated that the total will not be more than half of last year's cut. The absence of rain has not been the only cause for the low water in the river. It will be remembered that the big conservation dam at Temiskaming broke early last summer and caused the usual level in the lakes above the dam to fall.

Trade generally is not very brisk, though there is a fair amount of building going on in the city. Prices remain unaltered and are not likely to change for some time to come. Comparatively little activity is shown on the timber limits this season. The Colonial Lumber Company of Pembroke have recently put in seven camps.

Ottawa lumbermen, perhaps more than any other class of merchants, have reason to be more concerned about the lack of fire protection in the city, the serious condition of which has just been brought to the attention of the civic authorities by Mr. Norman Wilson, C. E., inspector for the fire underwriters' association. About two weeks ago Mr. Wilson made a test of the water pressure in the city. A few days ago he submitted a report on his test to Mayor McVeity and in it he proposed that the city should purchase three fire engines of not less than 1,000 gallon capacity, and also install without delay an overland intake pipe from the point in the Ottawa River from where the city draws its water supply. Mr. Wilson emphasizes that Ottawa is in a serious situation with regard to fire protection. A deputation from the Board of Trade urged the council to carry out the proposals of Mr. Wilson, the spokesman for the deputation being Mr. E. R. Bremner, of the Watson & Todd Lumber Company, and Mr. Gordon C. Edwards, of the W. C. Edawrds Company. Fire insurance companies have also notified some of the lumber companies that they must keep watchmen night and day on duty at their plants and install a clock system.

In addressing the Canadian Club a week ago, Sir Harry Johnston, the noted British explorer and Colonial administrator, said he had a conviction that Canadian lumber jacks would be the best class of men to go to the front in Europe for Canada.

Owing to the low water in the Ottawa both J. R. Booth and the E. B. Eddy Company have been compelled to close down their pulp mills and buy the product from other mills.

New York Hardwood Trade Prospects

Mr. J. V. Hill, eastern inspector for the Hardwood Manufacturers' Association of the United States, has recently been investigating market conditions in the east. In a report he says:—"I find, as a result of my visits to the different lumber yards, that the wholesaler is very anxious about the future supply of lumber, and is particularly anxious to ascertain about how much stock the mills have on hand and the extent of curtailment of production due to the war. I find that some of them have about decided that it would be good policy to purchase lumber at prevailing prices rather than wait until the demand increases and prices advance. They seem to feel that there will be a considerable shortage of dry stocks by the first of the year, and it would not be at all surprising if some of the large buyers of lumber in the New York territory would soon send out enquiries for stocks. I found a considerable shortage of stocks on a number of yards that I visited in New York, as well as in Boston and Philadelphia.

"In going over the situation here, I find that there are about one hundred and fifty retailers of lumber in New York City, and about the same number of wholesale and commission men. This does not include Brooklyn, Jersey City and Hoboken. I find that the retailer buys his lumber almost exclusively from the wholesaler and commission men. I also find that these parties discourage buying direct from the manufacturer. In some instances I find the commission men are getting a commission from the manufacturer and then selling here at a price above what the manufacturer gets. Some of the dealers exact very high grades from the manufacturer, and put it on the market here as one grade higher than what they purchase. This, however, is an old story as it has always been the case. Candidly, I believe that if the consuming trade in the New York territory is worked hard enough by salesmen of the manufacturer of lumber they will be able to develop a nice business. It is astonishing how little many of the foremen of the big yards know of lumber manufacturing concerns. In one case I asked a foreman if he received stock from some of our members—naming a half-dozen of the biggest hardwood producers in the country, and he said that he didn't remember ever receiving stock from any of those I mentioned. Practically all of the supply comes through the middleman."

Quebec Cullers' Report

The following comparative statement of timber measured and culled to date is furnished by the Supervisor of Cullers, Quebec, P.Q., under date of November 5th:—

	1912 Cubic Feet	1913 Cubic Feet	1914 Cubic Feet
Waney White Pine	1,055,200	216,600	593,080
White Pine	1,760	7,560	.....
Red Pine	12,200	960	1,040
Oak	109,400	158,800	343,240
Elm	276,640	211,520	305,240
Ash	520	1,000	680
Birch and Maple	38,640	47,680	50,800

St. John Transatlantic Shipments

Transatlantic shipments of wood goods from St. John, N. B., during October and during the nine months ending with October, for 1914 and 1913, are reported by W. Malcolm MacKay, St. John, as follows:—

	October, 1913		October, 1914	
Ports	Spruce	Birch Plank	Spruce	Birch Plank
Liverpool	1,557,846	.....	.....	.....
Manchester	128,702	.....	403,736	.....
Channel	1,428,765	.....	.....	.....
Glasgow	.....	.....	3,219,163	.....
London	271,272	202,442	1,863,079	146,252
Ireland	1,020,764	.....	.....	.....
Total	4,407,349	202,442	5,485,978	146,252
By Whom Shipped				
W. Malcolm Mackay	162,138	53,783	3,219,163	.....
J. E. Moore & Co., Ltd.	2,986,611	.....	572,695	42,006
Geo. McKean	1,258,600	58,236	1,694,120	.....
Other Shippers	.....	90,423	.....	104,246
Total	4,407,349	202,442	5,485,978	146,252

	Total to October 31st, 1913			Total to October 31st, 1914		
Ports	Spruce	Birch Plank	Birch Timber	Spruce	Birch Plank	Birch Timber
Liverpool	14,548.605	178.505	463	8,855,530	574,100	976
Manchester	19,522,380	297,135	....	12,451,839	415,764	131
Channel	6,618,846	.....	....	6,545,560	668,811	....
Glasgow	8,092,490	490,978	902	10,940,393	.....	304
London	9,457,020	4,197,790	224	7,175,773	5,605,925	....
Other Ports	.....	.....	....	7,268,600	.....	....
Ireland.	12,557,473	.....	....	10,669,251	20,782	....
Continent	.....	.....	....	979,149	.....	....
Australia	.....	.....	....	110,000	.....	....
South Africa	2,312,160	.....	....	2,463,823	.....	....
Total	73,108,974	5,164,408	1,589	67,459,918	7,285,382	1,411
Total	73,108,974	5,164,408	1,589	67,459,918	7,285,382	1,411
By Whom Shipped						
W. Malcolm Mackay.	30,993,842	1,504,442	225	34,678,446	1,548,443	52
J. E. Moore & Co., Ltd.	19,056,858	415,403	18	14,819,368	1,022,121	...
Geo. McKean.	16,124,046	2,284,548	1,322	13,911,428	2,908,405	1,359
Other Shippers	6,934,228	960,035	24	4,050,176	1,806,413	...
Total:	73,108,974	5,164,408	1,589	67,459,918	7,285,382	1,411

Imports of lumber from Canada into Cuba during the fiscal year of 1913 were valued at $262,949.

CAMP SUPPLIES

We have a splendid stock of Prunes, Dried Peaches, Apricots, Apples, Raisins, Currants. In fact everything in the eating line suitable for the Camp, and we would appreciate a line from you asking for our prices which we can assure you are as low as the present condition of supplies will warrant, and very much lower than we could offer if we were compelled to go into the market and buy today.

H. P. ECKARDT & CO. Wholesale Grocers

Church St. & Esplanade, Toronto

Jenckes Boilers

Horizontal Tubular Boilers
Locomotive Type Boilers
Vertical Boilers
Heating Boilers
Penstocks
Smokestacks
Steel Tanks
Plate Work

All Sizes, To Any Provincial Act. Write for quotations.

The Jenckes Machine Co.
Limited

Sherbrooke, Montreal, St. Catharines, Toronto, Cobalt, South Porcupine, Vancouver, Nelson
Works: Sherbrooke, Que., St. Catharines, Ont.

Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND USE—COMMENT AND VIEWS ON AN IMPORTANT BRANCH OF THE TRADE.

Making Inlaid Flush Veneered Doors

The inlaid flush or sanitary door has come into general use the last few years and to-day ranks at the head of the large and varied class of veneered doors. The first requirement in making a sanitary door is a good stock of dry core all of the same kind of wood. It has been proven time and again that the use of more than one kind of wood in the core of a veneered door leads to trouble, a trouble that usually develops after the door is finished and hung, and manifests itself by showing uneven lights and shadows on the face of the door, caused by the uneven shrinkage of the different kinds of wood used in the core.

Soft pine makes the best core. The fewer pieces of hardwood, hemlock or similar woods used the better the finished product. It is a common custom to use hardwood edge strips on both sides of the stiles, rails and muntins used to make up a flush veneered door core, but the safest way is to use a hardwood rim on the outside only and to make the entire core of soft pine.

There are two general ways to make the core; one consists of building up a door of stiles and rails with flush panels; the other consists of making the core in one piece, like a large rail with a strip on the outer edge. The first method is the best when cross-banding is not used, as is frequently done when the face veneer is ¼ or ⅜-in. in thickness. The second method is generally used when cross-banding is put on, and has many advantages, as all the joints are glued while being made into a core, while in the stile and rail method the core is dowelled together with no glue on many of the joints.

The cross-banding should be in one piece of either a large sheet of rotary cut veneer or be taped and glued up of narrow pieces. The thickness of the cross-banding depends on the thickness and size of the door—on a 3 ft. x 7 ft. door 1¾-in. thick ⅛-in. cross-banding is best. Often it is necessary to make a flush door 1⅜-in. thick to suit some builder who does not know much about a slab door, and in that case a cross-banding of 1/16-in. is used. Most door manufacturers will not guarantee a sanitary door made 1⅜-in. thick and always charge as much, and sometimes more, than for one made 1¾-in. or thicker.

The face veneer must be carefully selected, and if not in one piece must be jointed and glued in the joint. The glued veneer joint is the only safe joint to use on any kind of veneer. The joint that is laid up with tape only is bound to open up sooner or later and show a broken line in the varnish.

When the door is veneered and ready to be inlaid, it should have a wooden strip nailed on each end to protect the face veneer and form a shoe on which to slide the door from place to place.

The routing out for the inlay is a task for an expert workman, and no other should be allowed to try it. The "Kelly Router," driven by electricity, is the ideal method to use. A form must be built up to guide the router, and it is this feature that makes the inlaid door so expensive when bought in small lots or odd sizes. The cut for the inlay should extend through the face veneer only, and not touch the cross-banding, as on the cross-banding depends the strength and rigidity of the door. After routing, the corners are cut out with a chisel, as the router-bit is round and cannot leave a sharp outer corner. The strips of inlay are now cut to exact width and length and put in the grooves, and with a good grade of glue and well hammered down, it is not necessary to apply pressure to the face of the inlay after it is in place. The surface of the inlay should be nearly even and a little higher than the face of the door.

The door is now ready for the sanders, where the finishing work is done. This can be done on a drum sander if care is taken and good paper used, or it can be done on a belt sander. A combination of both drum and belt sander is advisable when ⅛-in. or thicker face veneer is used. If 1/16-in. face veneer is used the drum sander is very liable to cut through at the corners unless the door is perfectly straight and the machine especially set up for this work. By using a fine paper on all the drums and reducing the cut to nearly nothing, a 1/16-in. face veneer can be safely sanded on a drum sander. The door is now ready for the carpenters, who put any trimmings on desired or repair any minor defects.

The finishing with filler and varnish is just as important as the making, for many a good inlaid flush door is ruined by the purchaser when applying his finish. The inlay should be traced over with a very thin and white filler or shellac before trying to stain the balance of the door, otherwise the stain will strike into the inlay and spoil its effect. After the stain is well dried, give the whole door a coat of good varnish, using a narrow brush for the inlay, and brush lengthwise the inlay, after which varnish the balance of the door as quickly as possible, but do not brush across the inlay. This applies especially to doors finished with mahogany stain, which is very penetrating and is absorbed by the varnish and will discolor even the second and third coats of varnish. Do not use water stain on any kind of a veneered door, and insist upon the top and bottom edges being finished the same as the faces.—Neal Spoor in Veneers, Indianapolis, Ind.

Grade Yields of Hardwoods in Northern States

Secretary Kellogg, of the Northern Hemlock and Hardwood Manufacturers' Association, recently sent to his members a letter of inquiry regarding the percentage of different grades of lumber produced from logs in the Michigan territory, and the result of this investigation is extremely interesting. We are reproducing herewith the report on the investigation as published in a recent issue of that Association's Bulletin:

TIMBER	1st. & 2nds. Per cent			No. 1 Per cent			No. 2 Per cent			No. 3 Per cent		
	High.	Low.	Av.	High.	Low.	Av.	High.	Low.	Av.	High	Low.	Av.
Ash	25	12	17	36	20	27	30	15	23	40	18	33
Basswood	26	12	19	37	20	29	37	13	25	40	18	27
Birch	25	15	20	41	15	28	30	13	21	40	20	31
Hard Maple	20	5	14	40	20	30	31	14	22	50	22	34
Soft Maple	25	10	18	40	20	30	30	15	22	50	20	30
Soft Elm	20	5	15	35	18	25	30	12	24	50	25	36
Rock Elm	30	10	18	40	20	27	42	15	23	50	15	32
Oak	25	10	18	41	20	27	31	12	23	50	12	32
HEMLOCK	..	..	..	60	30	44	40	21	33	35	10	23

"The reports show a wide range due chiefly to variations in timber and methods of sawing."

The Importance of Sanitation in Camps

By Eugene R. Kelley, M. D.*

A great problem of the modern industrial world is industrial hygiene. Since the Civil War the development of efficient machinery and of mechanical power to operate this constantly improving machinery has been accelerated at a fairly bewildering rate of speed. The net result has been a degree of mechanical efficiency and a rate of mechanical output such as was never before known.

For several years during this process of industrial evolution little or no attention was paid to the human element—the worker. But during the past two decades experience has shown that aside from the personal interest of the worker, the prosperity of the industry itself necessitates an ever increasing attention to the worker's physical welfare, if his or her efficiency is to keep pace with the ever increasing efficiency of the machine. This has led to the discovery of the subject of industrial hygiene.

The chief forces that have been concerned in bringing the problem to the front have been, I think, in the order of their relative importance:

1. The workers themselves.
2. The employers.
3. Organized society, or "The State."

This tendency towards improved industrial efficiency has also expressed itself in many varying forms; we can see it in the increasing strictness of the great transportation companies relative to liquor drinking among employees; in all the agitation relative to the hours of labor; in such admirable examples of mutual help as the Typographical Unions' National Tuberculosis Sanatorium; in the establishment by great corporations of such departments as, for instance, the National Cash Register Company maintain for its employees' physical welfare.

The point where the state as such become actively concerned in this movement is in the consideration of the environment in which the worker must labor and live. This study of relation of environment to the health and efficiency of the worker and the application of the necessary or advisable remedial measures, determined as a result of the study, is known as Industrial Hygiene.

Industrial hygiene is, comparatively speaking, a new branch of science in this country. The subject has been developed to a much greater degree in Europe. But it has rapidly become a very important part of public health administration in many states. In Massachusetts and in the "cotton belt" of the South, the most prominent problem of industrial hygiene is that of the great textile factories. In Pennsylvania and Ohio the great coal and iron industries, with their accompanying subsidiary processes, are receiving the greatest attention. In New York City perhaps the question of environment of loft and tenement workers in the garment industry requires the most study and attention. But all these industries alike are being thoughtfully

* Address delivered at the recent Pacific Logging Congress.

Mr. Lumber-Dealer
Mr. Car-Builder
Mr. Ship-builder

THE PIONEER MAHOGANY MILL OF CANADA

Teak, Black Bean, and all kinds of Mahogany in Lumber and Veneers.

Door Stock in Ash, Oak, Poplar, and Birch cut to size or Log Run, Several Hundred Thousand Feet of Good Dry Mahogany in all Grades and Thicknesses Ready to Ship.

LET US FIGURE ON YOUR 1914 CONTRACTS

Dominion Mahogany & Veneer Company

Montreal West, P.Q.

studied and the conditions improved by the employees, employers and the state, working for the most part in an ever increasing spirit of co-operation.

In the state of Washington the most important aspect of industrial hygiene is that of camp sanitation. The greatest industrial camp problem in the United States is in our state. Factory development, in the usual sense of the word, is as yet in a rudimentary stage with us, hence, industrial hygiene in this state means principally camp sanitation or camp hygiene. The conditions of the lumber business are such that the health hazard while at work is practically nil (aside from accidents), but the conditions of living in camps are necessarily those of such close human association that the health hazard is bound to run higher than that of ordinary family life, unless the dangers to health inherent in camp surroundings are abolished or minimized by careful attention to camp sanitation.

For several years the State Board of Health has attacked this problem in a partial and rather unsystematic manner, doing what we could to better camp sanitary conditions by precept, example, advice and regulation. I feel that we can now prove that this work is needed, effective, a money saver to the employer and a health and life saver to the employees and employers alike, and that it should be put on a more permanent and efficient basis. I am also glad to be able to testify that in almost every instance as far as my recollection goes, where camp conditions have been brought to our notice, whether from disease occurrence or otherwise, that the owners and managers have been most courteous and cordial, and have promptly adopted and carried out our advice and directions.

Briefly, what are the essentials of camp sanitation. They are few in number, simple in nature and economical in application—provided always the start is made right from the beginning. They are:

(a) A pure water supply.

(b) A careful and scientifically correct disposal of the wastes of the camp—urine, excreta, manure and garbage.

(c) Fly prevention and fly proofing.

(d) Adequate ventilation, washing facilities, etc.

(e) Proper degree of kitchen and eating house cleanliness.

(f) Proper location in regard to drainage, etc.

In all this the State Board of Health is after practical results. We are not so much interested in the refinements. We do not expect to make a camp a parlor. The owners of camps where we have worked will, I think, testify unanimously to that, but we do mean to have a camp reasonably clean and protected against the most serious menace to health inherent in camp surroundings, to wit, typhoid fever.

The typhoid figures for this state are extremely interesting. Our figures are only reliable from 1908, as that is the first year that our vital statistics law went into effect.

In 1908, we had reported to the State Board of Health 1101 cases and 286 deaths from typhoid fever.

In spite of the great increase of population since 1908 for the state as a whole the typhoid death rate has gone down tremendously since then, and since 1910, the actual number of deaths has also decreased each year, as can be seen from the table:

Typhoid Fever in Washington

1908	1108	286	27.8
1909	1260	306	28.
1910	1566	324	28.
1911	1102	223	18.3
1912	770	159	12.4
1913	1028	136	10.2

Outside of the Centralia epidemic deaths last year are 124, which would give a rate of 9.4 deaths per 100,000 of population. This means that in spite of the most disastrous epidemic in the history of the state, last year we had only about one-third as many deaths from typhoid fever as in 1909 and 1910. If the 1910 rate had prevailed in 1913, our deaths would have been 392 instead of 136.

What is the reason for this remarkable life saving? Disregarding minor causes, I think the principal reasons are:

1. Improvement in water supplies and general sanitation in our cities.

2. The specific anti-typhoid campaign in Yakima which alone accounts for 25 per cent. of the reduction for the state.

3. General enlightenment on the part of the public in regard to typhoid, its nature, how spread, how prevented, etc.

4. Improvement in the general average of camp sanitation throughout the state.

As an example of the difference between camps wherein sanitation is disregarded and camps constructed on sanitary principles, let me call your attention to these parallel cases.

A. Construction camps in 25 miles of construction on the North Coast cut-off, in the valleys of the Palouse and Snake, had in four months at least 150 cases of typhoid with about 15 deaths among 2,000 workmen. These camps were built without our knowledge and were the immediate occasion of the regulations on camp sanitation.

B. Construction camps in 40 miles of construction on the Great Northern Wenatchee Oroville extension, in the valley of the Columbia, with almost identical climatic and other general surroundings to those of the Palouse camps, with an average of 800 to 1,500 men employed over a period of two years, had two cases of typhoid, both cases coming down sick within a week of coming on to the work, showing that they received their infection elsewhere. These camps were laid out and built under the direct supervision of the State Board of Health.

Results in these two sets of camps simply show the difference between neglect of sanitary principles and careful, painstaking following of these principles.

Quite recently two radically different types of statements were made at the Federal Commission on Industrial Relations hearings in Seattle. I was particularly interested in these hearings because our department, in possession of more unbiased facts and more definite knowledge of camp conditions in all probability than any other body in the state, was not called upon to testify at all.

We had the spectacle of some witnesses, who plainly showed by their testimony that they did not know what camp sanitation is, declaring that the sanitary condition of most camps in this state was the most horrible imaginable.

We saw a lumber operator whose own camps are in very fair sanitary condition, as I can testify from personal knowledge, endeavoring to maintain by inference that all camps are satisfactory.

Now the truth is that both of these viewpoints are wrong. There are a few, a very few camps in the state that are practically perfect from a sanitary standpoint. There are many other camps which need some corrections, usually very simple and very easily done when once pointed out. I wish I could say, after our department's seven years' work and agitation in this matter, that there are but few, but the truth is there are a good many that still range from bad to vile, from the standpoint of sanitation.

Personally I believe the time has come for the enlightened progressive operator to unite with the State Board of Health in a vigorous campaign to correct these things so that at least one just cause of industrial unrest can be eliminated. To do this will cost the employer very little—perhaps $200 on an average for a camp of 100 men, over and above the cost of the type of camp where sanitary principles are ignored. The people who will benefit most and the ones for whom I am most interested, are the employees, but I believe in terms of financial interest, leaving out the humanitarian aspect entirely, that it is an improvement worth your while.

Re-Arrangement of Canadian Western Finances

The Canadian Western Lumber Company, Limited, and the Columbia River Lumber Company, Limited, have issued circulars to their debenture holders in England, stating that, on account of the decrease in business following the outbreak of the war, they have found it necessary to make a re-arrangement of the companies' financial affairs. A scheme of re-arrangement has beer submitted, which it is expected will prove satisfactory.

The Original Optimist

Robinson Crusoe was the Original Optimist. Times looked bad for Robinson—couldn't have looked much worse. But he didn't say "What's the Use;" didn't lie down, whimper, kick, and growl at destiny.

No, Crusoe used his head; he thought—then he thought some more—real serious line of thinking. Just what to do was the puzzle Crusoe was solving. Finally it came to him in a flash—"I have it," said Robinson,—**"I'll advertise."**

A thousand miles from no where—a possible buyer coming within reading distance of his ad every few years—that was Robinson's outlook. It was hard times,—business depression, a stringent money market,—also what Sherman said about war.

But Crusoe, as before mentioned, was an Optimist, also a believer in persistent advertising.

He wanted a ship—how would he get it? Answer—"Advertise." And he did—flung a shirt from the top of a pole.

The first advertisement brought no returns.

But Crusoe wasn't discouraged. He changed the "copy"—put up another shirt. Yes, times were hard—awful hard; but Crusoe won out—he got his ship—and he did it by **Persistent advertising.**

Crusoe was the original Optimist.

Our Generous Sizes

Are what the Lumbermen require in

Mackinaw Long Pants
Mackinaw Short Pants
Mackinaw Strap or Cuff Knickers.
Heavy Tweed Pants
Heavy Tweed Knickers
Etoffe Pants
Etoffe Knickers

Buck Skin Mitts
Mule Skin Mitts
Pig Shin Mitts
Hand Knit Wool Mitts

Buck Skin Gloves
Horsehide Gloves
Mule Skin Gloves
all in generous sizes.

Montreal
Toronto

Smart-Woods LIMITED

Ottawa
Winnipeg

HOE

Chisel Tooth Saws

The Choice of Lumbermen in two Hemispheres

More than 80,000 of these saws are now in use in all parts of the world. Hoe Chisel Tooth Saws are backed by 86 years' experience in the manufacture of saws. They are made from the finest steel, evenly tempered throughout. Special Flanged Shanks and Superior Bits are supplied for sawing hardwood.

We are the oldest Saw manufacturers in America

R. HOE & CO. 504-520 Grand Street, **NEW YORK CITY**

We make a Specialty of

Conveyor Chains

For Lumbermen

WE make them from carefully-selected iron, and every link is guaranteed ***strictly hand-made***—not the inferior machine-made.

The point is worthy of special emphasis.

We make the chains according to any dimensions desired, guarantee splendid workmanship; uniformity; dependability.

Prices are the lowest possible for the class of work we furnish, and Quality above criticism.

Let us quote for your needs.

Send for catalogue giving estimated weights of various sizes of chain; prove test; breaking, straining and safe-working loads, and giving hints regarding the care of chain which will prolong a chain's usefulness.

Woodhouse Chain Works

P.O. Box 525 **TRENTON, N.J.**

Everything in Spruce

Dressed and in the Rough

Campbell, MacLaurin Lumber Co.

Limited

Board of Trade Building, MONTREAL

BUSINESS AS USUAL

I am Endeavoring to Carry on Business in a Normal Manner.

MY LINE

PINE, SPRUCE, HEMLOCK HARDWOODS, LATH

GOOD STOCKS PROMPT SHIPMENTS SATISFACTION

C. A. SPENCER *Wholesale Dealer in Rough and Dressed Lumber, Lath and Shingles*

Eastern Townships Bank Building, MONTREAL, Quebec

EDGINGS

Ontario

The St. Mary's Wood Specialty Company, Limited, St. Mary's, Ont., are reported to be in the market for a slab re-saw of the Fisher type, also an Ober axe handle lathe and an Ober rod machine.

Simon Buschlen, Port Elgin, Ont., is drawing up plans for the erection of a basket making factory. The building will be one storey, 50 x 50 ft. The owner will purchase basket-making, wood-turning and pump-making machinery.

The Hawkesbury Board and Paper Mills, organized by Montrealers, will shortly commence work on the erection of its mill at Hawkesbury. T. E. Helmick, of the Herald Building, Montreal, is one of those interested in the proposition.

The Beaver Wood Fibre Company, Limited, Thorold, Ont., which was recently incorporated with authorized capital of $1,000,000, will acquire the property and plant of the Beaver Company in Thorold, with an output of about sixty tons a day of beaver board.

James Horrigan & Company, Limited, Port Arthur, Ont., notice of whose incorporation was recently published in the Canada Lumberman, advise us that they are engaged in the contracting and timber business. At present they are operating pulpwood camps at Point Magnet, Ont.

The Windsor Lumber Company, Windsor, Ont., have commenced the erection of a planing mill at Cameron and Wyandotte Streets. Up-to-date machinery will be installed, with individual motor drive. The building will be one storey, 48 x 60, frame construction, with concrete foundation.

Playfair & White, Midland, Ont., were the successful tenderers for the coming winter's output of ties, posts, etc., cut by the Indians of the unceded part of Manitoulin Islands. The Department of Indian Affairs reports that very few tenders were received, but the prices offered were very good, considering existing circumstances. The prices secured are not made public by the Department. The tenders were for 25,000 cedar railway ties, No. 1 and No. 2 quality; 25,000 cedar posts, 1 ft. long by 8 in. and under in diameter, and 500 cords of shingle blocks.

Eastern Canada

The firm of Lariviere & Frere, Roxton Falls, P.Q., manufacturers of doors, etc., has been dissolved.

The woodworking factory formerly operated by H. E. McArthur, Limited, at Stellarton, N.S., is now being operated by D. Porter & Sons.

The Chaleur Pulp and Lumber Company, Limited, has been incorporated with authorized capital of $75,000 and head office at Montreal. The incorporators include H. S. Ross and E. R. Angers of Montreal.

The Nairns' Falls Power and Pulp Company, Limited, has been incorporated with authorized capital of $100,000 and head office at the village of Malbaie, P.Q. The incorporators include L. A. Martin, R. Pepin, L. E. Morin, L. G. Morin and W. E. Morgan, all of Montreal.

The sash and door factory of M. F. Schurman & Company at Summerside, P. E. I., was recently damaged by fire. The loss is estimated at $6,000, which is partly covered by insurance. A number of valuable woodworking machines and a considerable quantity of manufactured and rough lumber were destroyed.

The Allaby-Wheaton Company, Limited, has been incorporated in New Brunswick to carry on the general mercantile business formerly conducted by R. V. Allaby. The powers granted to the company include the carrying on of a general lumbering business in all its branches. The authorized capital of the company is $20,000, and the head office is in the Parish of Norton, Kings County. The incorporators include R. V. Allaby, of the Parish of Norton, and H. E. Wheaton, of the town of Sussex, N.B.

Tenders are being received by the Deputy Minister of Marine and Fisheries at Ottawa until noon on November 10th for the supply of 300 white pine logs averaging 35 ft. long, not less than 14 in. at the small end under the bark. The logs must be of straight growth, without knots or other defects. Tenders are also being received up to the same date for 50,000 ft. B.M. of rock elm to be in logs 25 to 40 ft. long (average length 35 ft.) not less than 10 in. diameter at the small end under the bark. These logs must be of good sound rock elm, of straight growth and without defects. Further details of the specifications may be obtained by application to the superintendent of the Government shipyards, Sorel, P.Q., or the purchasing agent, Ottawa. The price is to include delivery in the shipyard at Sorel.

Western Canada

The Forests Products Company of Vancouver, are planning to erect a four-machine shingle mill at Port Moody, B.C.

The new mill of the Huntting-Merritt Lumber Company at Eburne, B.C., has been started. This plant embodies many new features of operation.

The Sunset Sash & Door Factory, 724 Broadway West, Vancouver, B.C., who recently lost their plant by fire, will erect a new factory to cost $10,000 next spring.

Plans have been drawn up by the Edmonton, Dunvegan & B. C. Railway for the construction of a sawmill to cost $20,000 near the St. Albert Trail, Edmonton. Work is to start at once.

Tenders are being received by the Minister of Lands of British Columbia until December 24th for licence X282 to cut 4,439,000 feet of merchantable timber on cancelled, pre-emption No. 80, Upper Thurlow Island, Range 1, Coast District. Three years will be allowed for the removal of the timber.

At a general meeting of the members of the Crown Lumber Company, Limited, recently held at Vancouver, B.C., a resolution was carried that the company be wound up voluntarily, and that Mr. O. L. Poynton be appointed liquidator.

The Canyon City Sawmills Company, Limited, Creston, B.C., have erected temporary buildings for their yard and sheds at Regina, Sask. Permanent buildings will not be erected until next spring. The manager of the business at Regina is Mr. N. J. Eastman.

J. S. Deschamps, Rossland, B.C., has started the construction of a new sawmill at Kinnard on the Nelson-Rossland branch of the Canadian Pacific Railway. The new mill will be a portable, with a capacity of 20,000 feet per day, and is expected to be in operation shortly.

The sawmill which is being erected by the Alberta & Great Waterways Railway at Edmonton, Alta., is being completed as rapidly as possible. Frame work is now up and machinery capable of turning out 200,000 feet of lumber daily will be installed. The address of the above company is care of J. D. McArthur, St. Alberts Trail, Edmonton.

The Illinois-Timber Company, Limited, has been incorporated in British Columbia with authorized capital of $25,000 and head office at Vivtoria, B.C., part of the powers of the company being to purchase certain timber licences from John C. Spry, also to acquire other timber licences, timber lands, etc., and carry on a lumber manufacturing business.

The sawmill and planing mill belonging to the Forest Mills of British Columbia Limited, at Comaplix, B.C., were destroyed by fire recently, together with the Lardeau Hotel, located near by. The total loss is estimated at a quarter of a million dollars. It is stated that the fire was of incendiary origin and started in three places simultaneously.

Sealed tenders are being received by the Minister of Lands for British Columbia, until December 2nd, for the purchase of pulp licence X272, to cut 8,923,000 feet of timber on expired timber licence 37,125 in the vicinity of Topaz Harbor, Range 1, Coast. Ten years will be allowed for the removal of the timber. Further particulars may be obtained from the chief forester, Victoria, B.C.

Sealed tenders are being received by the Minister of Lands for British Columbia, until December 8th for the purchase of licence X232 to cut 2,825,000 feet of merchantable timber, and 14,000 ties, situated in the vicinity of lot 7222, Rau Shuswap and Fraser Rivers, Cariboo district. Three years will be allowed for the removal of the timber. Further particulars may be obtained from the chief forester, Victoria, B.C.

The Alberta North West Lumber Company, Limited, whose head office is at Ponoka, Alta., have secured an extra-provincial license to carry on business in the province of British Columbia, with provincial headquarters at 901 Vancouver Block, Vancouver, B.C. Mr. R. S. Lennie, Vancouver, is attorney for the company and its capital stock is $20,000. The objects of the company include the carrying on of a lumbering business and lumber trade in all its branches.

The Minister of Lands, Victoria, B.C., is receiving tenders for timber as follows:—Until November 30th for nine pulp licenses covering 205,547,000 feet B.M. of hemlock, balsam fir, spruce, cedar and Douglas fir, situated on the coast of British Columbia, thirty years allowed for removal; until December 2nd for pulp license X272, covering 8,923,000 feet B.M., near Topaz Harbor, Range 1, Coast, ten years allowed for removal; until December 8th for license X232 covering about 2,825,000 feet B.M. of merchantable timber and 14,000 ties near lot 7222, Rau Shuswap and Fraser Rivers, Cariboo district, three years allowed for removal; until October 31st for license X216 to cut 720,000 feet B.M., situated near T. L. 34,894, Upper Stave River, New Westminster district, two years allowed for removal.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1043. **Wood pulp.**—A Birmingham firm is open to consider quotations on sulphite.

1044. **Printing paper.**—A Nottingham firm is open to receive quotations and samples of printing paper.

1045. **Wood pulp.**—A London firm using thousands of tons of mechanical and sulphite pulp annually is open to receive offers c.i.f. London.

1046. **Mechanical wood pulp.**—A Sheffield firm is open to receive quotations.

1047. **Pulp wood.**—A West Hartlepool firm inquires for pulp wood in quantities from 4,000 to 5,000 English fathoms of 216 cubic feet, 4-inch top and upwards, of white wood free of bark and bast.

1048. **Wood pulp.**—A West Hartlepool firm inquires for quotations on sulphite, soda and mechanical pulps for 500 tons each of the former two, and 100 tons of the latter.

1049. **Printing paper.**—A Nottingham firm inquires for quotations, sample on file at Department of Trade and Commerce, Ottawa.

1050. **Wood pulp.**—A Hayfield firm inquires for sulphite wood pulp. They use about 100 tons per month. The same firm is also open to purchase mechanical wood pulp. Samples on file at Department of Trade and Commerce, Ottawa.

1051. **Matchwood.**—A Lancashire firm of matchmakers and merchants wishes to get in touch with Canadian exporters of cotton wood or aspen, about 12-foot lengths and 20 inches in diameter.

1059. **Wood pulp.**—A Glossop firm would like to hear from exporters of spruce wood for paper-making purposes or sulphite pulp.

1060. **News print.**—A Cape Town commission house with connections throughout South Africa requests immediate correspondence with a view of selling Canadian news print.

1061. **Wrapping paper.**—A Cape Town commission house is prepared to take up a selling agency of Canadian-made wrapping paper, immediate correspondence requested.

1064. **Wood match splints.**—A London firm has a large market for wood match splints, and desires to be placed in immediate touch with Canadian manufacturers.

1066. **Canadian doors.**—A London correspondent stated to have a large demand for Canadian doors, also red pine sawn timber, and pit props, wishes to get in touch with shippers in the Dominion.

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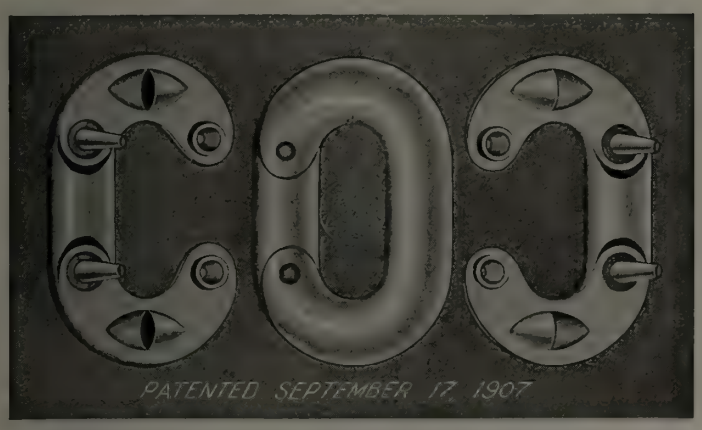

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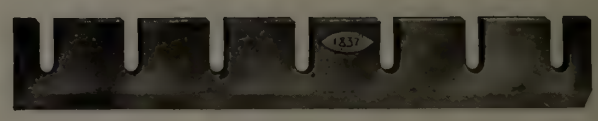

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"Wilson Bros." Hardwood Flooring

is the Flooring that is manufactured expressly to supply the demand for the best. It is made by modern machinery from carefully selected stock, and every precaution is taken throughout our entire system to make it fulfill the requirements in every particular. Write us for prices.

Wilson Bros., Limited - Collingwood, Ont.

GOODHUE BELTING For

Saw and Planing Mills

In a Goodhue Belt you get only the best leather with the stretch taken out of it. A Goodhue Belt will always run evenly and "clings" to the pulley transmitting 100 per cent. of your power.

For the wet places in the mill we have a special waterproof leather belt—"Acme". Other Goodhue Belts are "Extra" and "Standard" recommended according to the conditions under which the belt has to run.

Goodhue Belts stretch less than any other belt by 15 to 25 per cent.

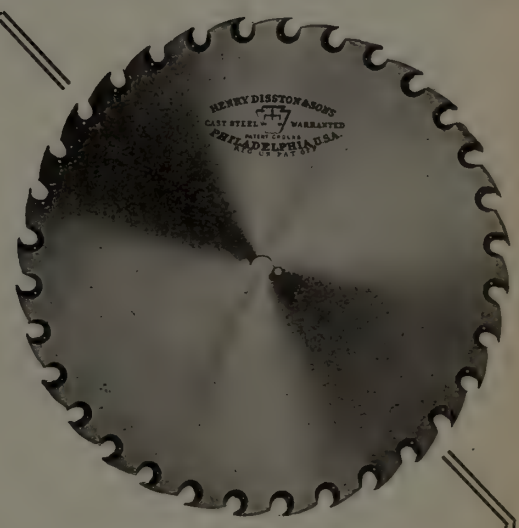
SEND FOR PRICES AND PARTICULARS

J. L. Goodhue & Company, Limited

DANVILLE - QUEBEC

More work with less power

with a saw that won't clog, that requires no gumming, little hammering, and that always retains its original size—that's what you get with the



DISSTON Inserted Tooth Saw

If you hit a nail and break a tooth—insert a new one. If your saw strikes heavy metal, you can insert a whole new set of teeth in a few minutes. No time wasted in gumming and your **saw is still the same size.** This means economy in first cost and increased saw life. You don't have to buy a saw several sizes larger than your requirements demand.

A file keeps it in order. Pointed and sharpened quickly and easily. Cuts all kinds of timber, frozen or otherwise.

Disston Points

The Disston Chisel Point Tooth is drop forged and pressed (not milled). It is strongly reinforced with a shoulder which affords permanent support against the saw plate. The Disston Point is secured firmly and permanently by a spring holder either slotted or solid. The large and increasing demand for Disston Points is convincing testimony of their quality and satisfactory service.

Write today for full information and our new book "Saw Appreciation"

TRADE MARK

Reg. U. S. Patent Office

Henry Disston & Sons, Limited

TORONTO, CANADA **Branch at Vancouver, B.C.**

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1¼-in. No. 2 C. & B.	45 00	47 00
2-in. No. 2 cuts and better	47 00	49 00
4/4 No. 2 and 3 cuts		31 00
5/4 and 6/4 No. 2 and 3 cuts		37 00
8/4 No. 2 and 3 cuts		38 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	31 00	32 00
1 x 12 common and dressing	32 00	34 00
1 x 10 and 12 mill cull stocks		23 00
1-in. mill cull sidings		21 00
5/4 and 6/4 x 4 m.r., m.c. out		27 00
5/4 and 6/4 x 5 m.r., m.c. out		27 00
5/4 and 6/4 x 6 m.r., m.c. out		27 00
5/4 and 6/4 x 8 m.r., m.c. out		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out	32 00	34 00
2 x 10 common		26 00
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common		27 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts		22 00
1-in. mill run Norway		22 00
2-in. mill run Norway		23 00
Norway, c. and cf. 1-in.	28 00	30 00
Norway, c. and cf. 1½-in.	30 00	32 00
Norway, c. and cf. 2-in.	30 00	32 00
Spruce mill culls		19 00

Hemlock No. 1:

1 x 4 and 5-in. x 9 to 16 ft.	17 00
1 x 6-in. x 9 to 16 ft.	20 00
1 x 8-in. x 9 to 16 ft.	20 00
1 x 10 and 12 in. x 9 to 16 ft.	22 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	18 00
1-in. No. 2, 6-ft. to 16-ft.	17 00
2 x 4 to 12, 10 and 16 ft.	20 00
2 x 4 to 12-in., 12 and 14 ft.	20 00
2 x 4 to 12-in., 18 ft.	24 00
2 x 4 to 12-in., 20 ft.	26 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 24 ft.	28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	16 00
Clear in B. C. cedar, kiln dried	50 00

Douglas Fir:

Dimension Timber up to 32 feet: 8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.	33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	34 00
10x20, up to 32 ft.	34 50
6x18, 8x18, up to 32 ft.	35 00
6x20, 8x20, up to 32 ft.	36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 to 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath	5 00
1½-in. No. 2 4-ft. lath	4 75
1½-in. 32-in. pine	2 65
1½-in. No. 1 4-ft. hemlock lath	4 00
1½-in. mill run hemlock lath	3 75
XX B. C. cedar shingles	2 25
XXX 6 butts to 2-in.	2 85
XXXX 6 to 23-16-in.	3 05
XXXXX	3 35

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1 com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4.	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4.	30 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	28 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	28 00
Soft elm, No. 2 and 3 common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4.	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	28 00
Hard maple, 12/4 & 16/4, 1sts and 2nds.	46 00
Red oak, plain 1sts and 2nds, 4/4	59 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	65 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1sts and 2nds, 4/4.	59 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	65 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:		
1" x 4" and up, 6'-11'	17 50	18 00
1"x3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	60	65
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	75
By the dram, according to average and quality, 30 to 35 feet	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00
1¼ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn

1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00

No. 3 Barn

1 inch	21 00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00

Mill Culls

Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	14 00	17 00	20 50	18 50
2 x 6	14 00	17 00	20 50	18 50
2 x 8	17 00	17 50	21 00	19 00
2 x 10	18 00	18 50	21 50	20 00
2 x 12	18 00	19 00	23 50	21 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 Cedar, Pine, Spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft.	14 and 16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	21 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft.	$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8 in., 10 in. and 12 in. shiplap 10/16 ft.	23 50
B. C. Fir 6 in. shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch	$31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25
No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

LATH

No. 1 Mixed W. & R. Pine	**$4 25**
No. 1 B. C. Fir	**3 65**

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine Common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00

(Continued on page 66)

28 "Service" Branches Throughout Canada

Canadian Consolidated Rubber Co., Limited

Montreal, P. Q.

"BUSINESS AS USUAL"

We have not, owing to the War, shut down any of our plants, discharged any of our workmen, reduced their hours of labor, or cut their rate of pay.

We are doing ***"Business as Usual."***

We intend to continue this policy to the extent of our ability, and, to that end, suggest that you confine your purchases, during the war and thereafter, as largely as possible to goods ***"Made in Canada."***

When in the market for Rubber Goods of any description — Belting, Hose, Packing, Tires or anything else—write or wire our nearest branch for prices and information.

It is our desire to serve you.

"BUSINESS AS USUAL"

Canadian Consolidated Rubber Co., Limited

Montreal, P. Q.

28 "Service" Branches Throughout Canada

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	30 - 32	20 - 22	14 - 16
5/4 to 8/4	33 - 35	22 - 24	14 - 15
10/4 to 16/4	37 - 39	27 - 29	19 - 21

RED BIRCH

4/4	41 - 43	27 - 29	15 - 17
5/4 to 8/4	43 - 45	29 - 31	17 - 19

SAP BIRCH

4/4	35 - 37	23 - 25	17 - 19
5/4 and up	37 - 39	25 - 27	17 - 19

SOFT ELM

4/4	35 - 37	24 - 26	15 - 17
5, 6 & 8/4	37 - 39	26 - 28	17 - 19

BASSWOOD

4/4	33 - 35	24 - 26	16 - 18
Thicker	35 - 37	26 - 29	19 - 20

PLAIN OAK

4/4	51 - 53	32 - 34	20 - 22
5/4 to 8/4	53 - 55	34 - 36	22 - 24

ASH, WHITE AND BROWN

4/4	45 - 47	27 - 29	18 - 20
5/4 to 8/4	52 - 54	29 - 31	19 - 21
10/4 and up	61 - 63	41 - 43	21 - 23

BOSTON, MASS.

White pine uppers, 1 to 2 in.	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards	23 50	25 00
Spruce, 10 in. dimension	24 00	27 00
Spruce 12 in. dimension	26 50	28 00
Spruce, 9 in.	23 50	24 50
Spruce, 8 in. and under dimen.		23 00
10 and 12 in. random lengths, 10 ft. and up		24 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up		20 00
All other random lengths, 7-in. and under, 10 ft. and up	20 00	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	21 00	22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	22 00	22 50
1½-in. spruce laths		4 10
1½-in. spruce laths	3 70	3 80

New Brunswick Cedar Shingles

Extras		3 30
Clears		2 80
Second clears		2 75
Clear whites		2 40
Extra 1s (Clear whites out)		1 50
Extra 1s (Clear whites in)		1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40	3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Clear Perfection, 5 butts to 2¾		4 80
Washington 16-in. 5 butts to 2-in. extra red clear		3 35

New **RAILS** Relaying

12 to 80 pounds per yard.

LOGGING CARS

Jno. J. Gartshore

58 Front St. West, Toronto

Patented Nov. 29-1892
July 19-1910

PERFECT GROOVES

Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

HUTHER BROS. SAW MFG. COMPANY, Inc., 1103 University Ave. ROCHESTER, N. Y.

A National Journal for **Managers Superintendents Electricians** and **Engineers** of **Electric Light Plants** and Everybody Interested in Electricity

The Only Electrical Paper in Canada

Useful to Subscribers

Profitable to Advertisers

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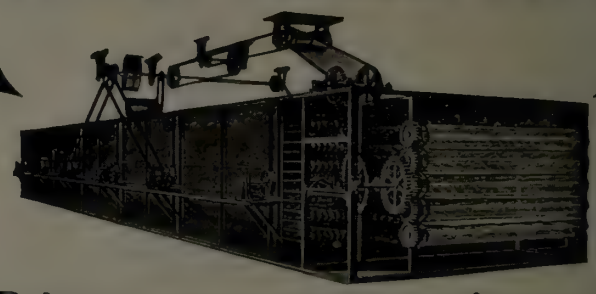
Hugh C. MacLean, Ltd.
347 Adelaide St. West,
TORONTO

PROCTOR VENEER DRYER



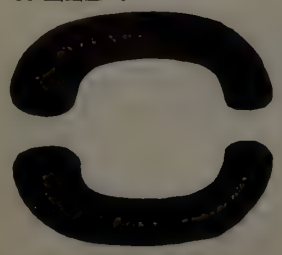
Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

Send for catalog and list of users

The Philadelphia Textile Machinery Co., Philadelphia

"AJAX" Loading Chain

WELD:



Sectional view showing comparative size of weld and chain.

Experience has taught us that a good chain cannot be made from cheap material. In Ajax chains you get the best steel obtainable and every weld guaranteed. Ajax chain is guaranteed to pull stiff before breaking.

MANUFACTURED ONLY BY

Standard Chain Company, Pittsburgh, Pa.

MONTREAL—Alexander Gibb, St. Nicholas Bldg.
WINNIPEG—Bissett & Loucks
VANCOUVER—John Burns, 329 Railway St.

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS,

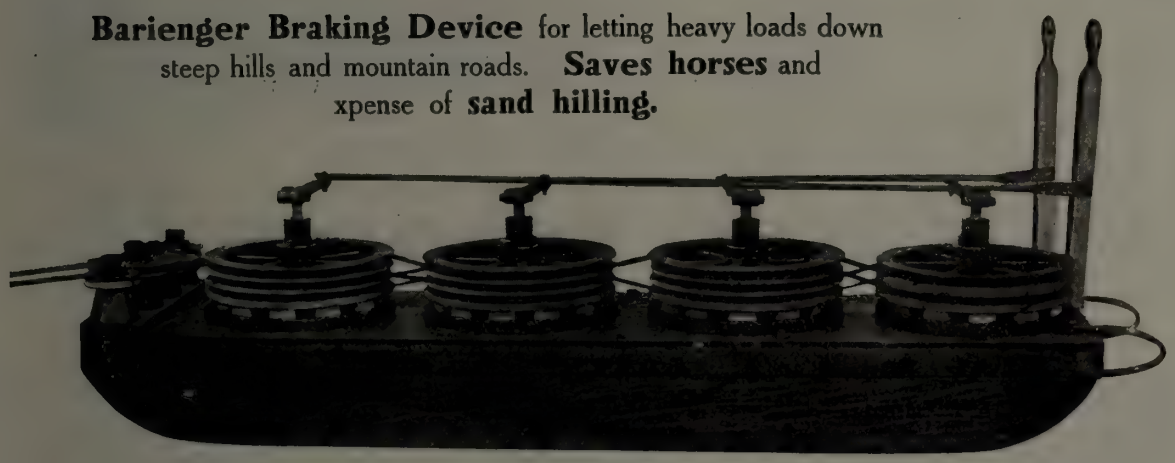
LONDON, CANADA **LIMITED**

Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.

Locomotive Boiler on Skids

You Need a Brake This Season

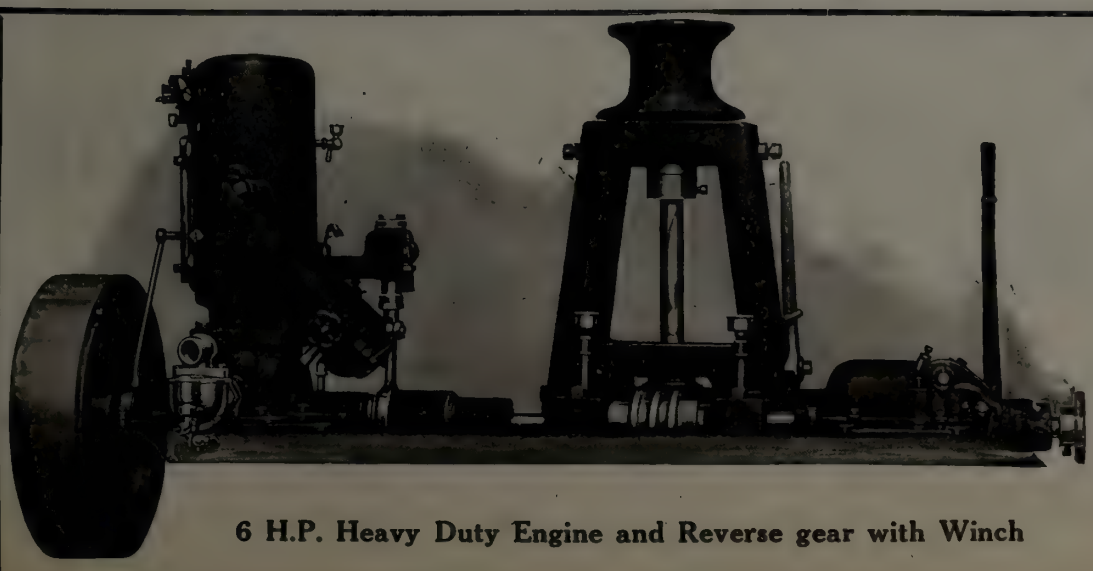
Barienger Braking Device for letting heavy loads down steep hills and mountain roads. **Saves horses** and xpense of **sand hilling.**



Now is the time to consider the use of this brake for another season before hauling roads are planned and built. By using this brake lumbermen are able to work much steeper roads, and in consequence, shorter roads and there is a considerable saving in the cost of building roads.

OUR CATALOGUE FULLY EXPLAINS

Ryther & Pringle Company, Carthage, N.Y.



6 H.P. Heavy Duty Engine and Reverse gear with Winch

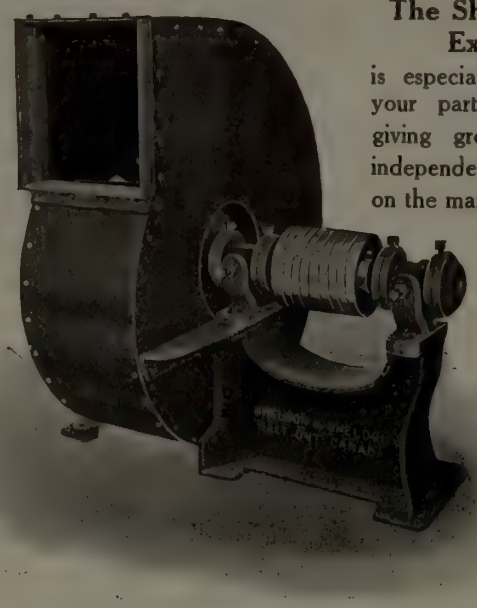
River Driving Costs

will be decidedly lower this year if you use Adams Gasoline Towing Machinery in 25 ft. punts for carrying supplies and handling booms and logs. One man does the work of ten. We have both machinery and complete punts for prompt shipment. It will pay you to write us now. Gasoline engines all sizes, 2 to 25 h.p.

Adams Launch & Engine Co.
Penetang, Ont.

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**



The Sheldon Shaving Exhaust Fan

is especially designed to suit your particular requirements, giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:

Messrs. Ross & Greig, 412 St. James St. Montreal, Que. — Messrs. Walker's Limited, 259-261 Stanley St. Winnipeg, Man.

Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.

Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.

Morgan Machine Company

ROCHESTER, N. Y.

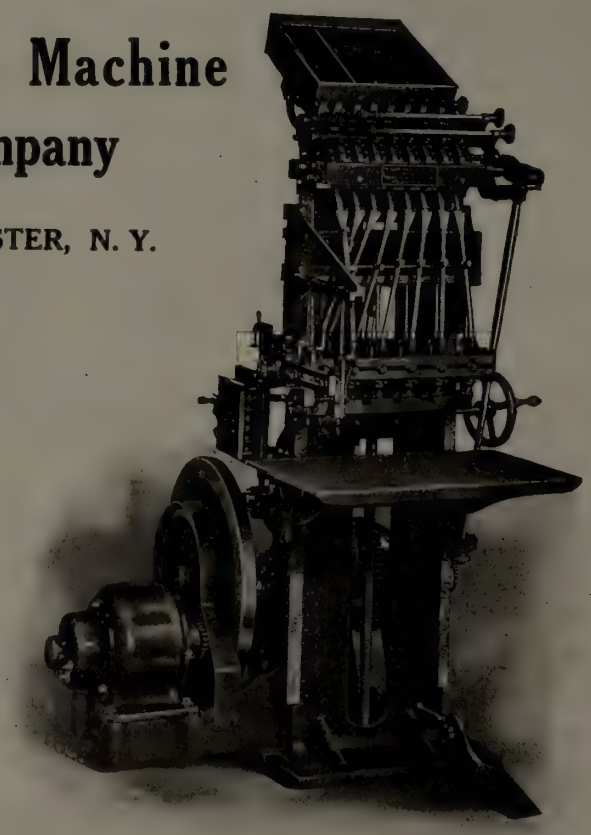
Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.



Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N.Y.

The Connecting Link

Way back in 1880 the **Wanted and For Sale** columns of the Canada Lumberman and Woodworker were used extensively by the lumbermen of Canada for the purchase and sale of timber, lumber and machinery.

Time has but served to enhance the value of this medium, until to-day the **Wanted and For Sale Department** of the Canada Lumberman has become a national market.

Twice a month "the paper with the green cover" brings together buyers and sellers of lumber and machinery from all the principal lumbering centres of Canada and the United States. By covering this wide field, the percentage of waste circulation for advertisers has been reduced to a minimum.

For quick and satisfactory results, get your advertisement in the **Wanted and For Sale Department** of the

Canada Lumberman & Wood Worker

Published 1st and 15th of the Month

The National Lumber Journal of Canada

TORONTO - - - CANADA

Branch Offices:

Montreal Winnipeg Vancouver London, Eng.

United States Representatives:

W. D. Ward, 628 Tribune Building, NEW YORK.

E. J. Macintyre, 1155 Peoples Gas Building, CHICAGO.

No Poor Cutterhead Work Now

The top and bottom cutterhead journal bearings of the Berlin New **91** Matcher can never heat from being too tight, nor pound from being too loose. The operator never has to adjust them. He merely keeps their sight feed oil cups filled.

Automatic Take-up bearings have eliminated at least one cause for poor cutterhead work, have done away with a frequent cause for shut-downs, lost time, reduced output. They have put matcher operators in the position of not having to worry over and spend valuable time on cutterhead bearings. As a result the knives get more needed attention, as does also the rest of the machine. Only one Matcher is equipped with Automatic Take-up bearings.

The Berlin New 91 Matcher

Perfect cutterhead bearings are a tremendous help toward high quality planing; but a perfect running cutterhead with knives kept sharp by frequent grinding, and jointed to a perfect cutting circle, is practical assurance of the finest possible work.

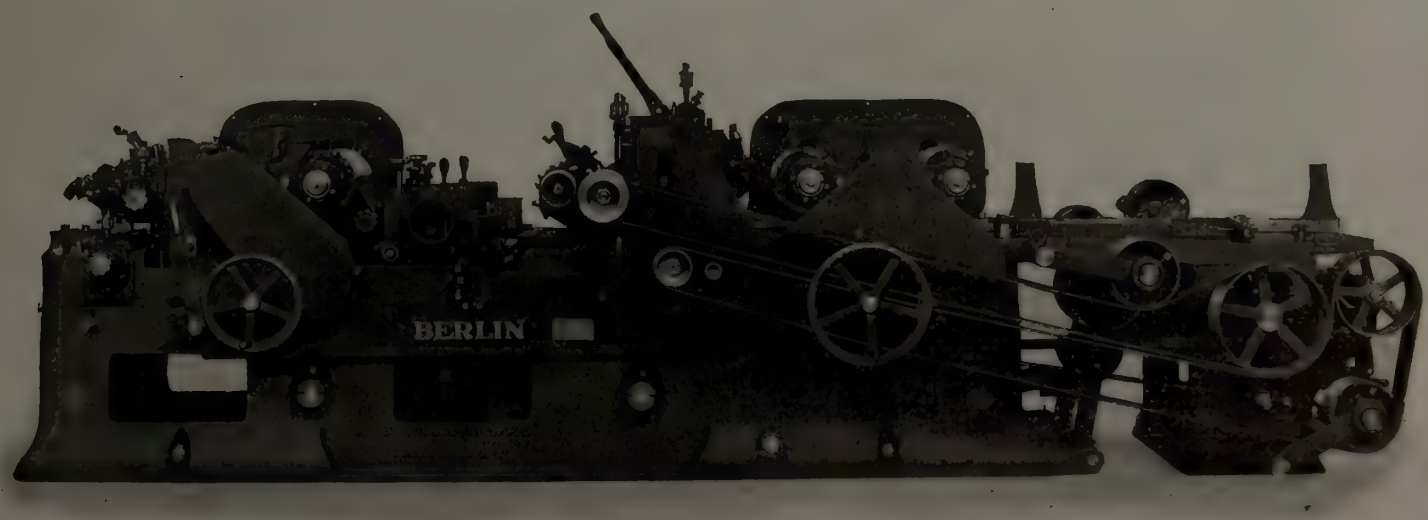
The illustration above shows a cutterhead journal bearing always perfectly adjusted. The cap is not pressed down to cause heating. It is merely held down. With natural wear the cap settles to the journal, the bronze wedges follow, holding it in position; it cannot jump up even under heavy pressure. As long as the operator keeps a supply of oil in the sight feed oiler, this automatic bearing can give no trouble.

The jointing device is shown in position to joint the knives to a true cutting circle, after they are set as nearly as possible to position with a hardened steel jig. Carefully jointed, every knife does its share of the cutting. You get knife marks—not revolution marks. Surfacing with cutter heads prepared in this manner is beyond criticism.

An output amounting to 250 feet per minute and upwards, and for 90 per cent. of every working day, is thus made standard wherever a New 91 is used.

Can you say as much for the matcher you are operating?

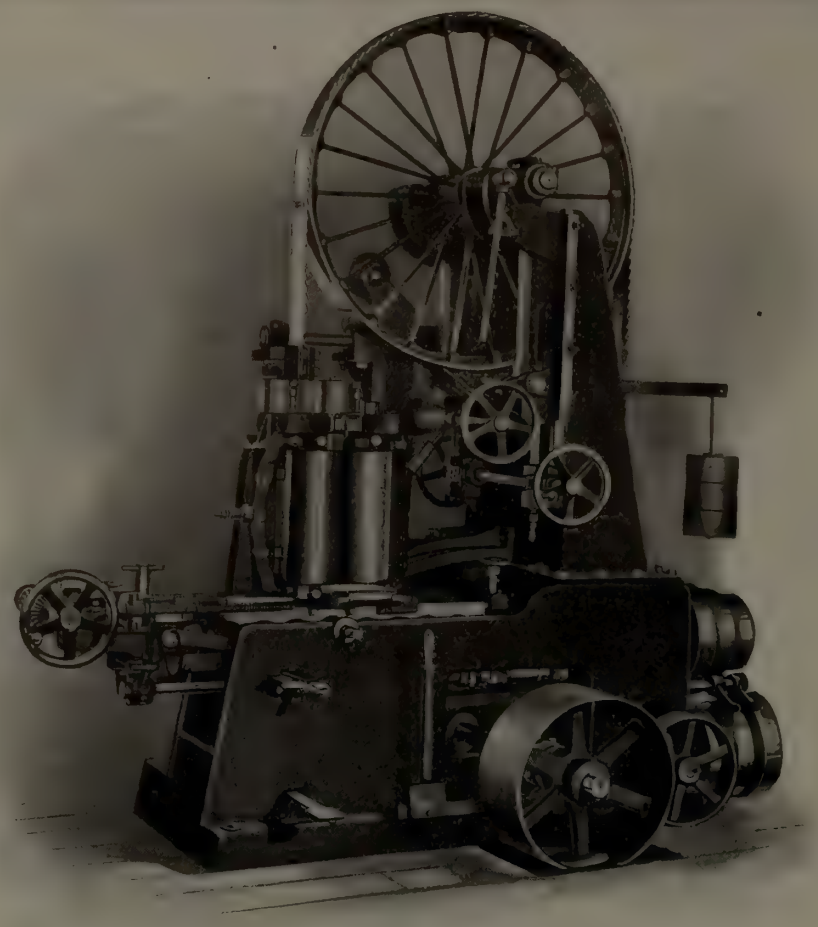
Ask for a Descriptive Circular.



BERLIN MACHINE WORKS, LIMITED, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World

UNITED STATES PLANT - - - - BELOIT, WISCONSIN



54″ Vertical Re-Saw

This is an exceptionally rigid machine and will give high grade results at a fast feed under the hardest conditions of continuous service.

The upper band wheel rests directly on the straining device making a very sensitive tension; therefore a very thin saw can be used.

We also manufacture Horizontal Re-saws and will gladly mail catalogue upon request.

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.

INDUSTRIAL LOCOMOTIVES

The designs of our small locomotives are the result of wide experience.

All details are accurately finished to standard gauges and are absolutely interchangeable on all locomotives of the same class and size.

This cuts out long delays when parts wear out, as parts liable to wear can be kept on hand or shipped promptly from our works.

MONTREAL LOCOMOTIVE WORKS, LIMITED

DOMINION EXPRESS BUILDING, MONTREAL. CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog "H."**

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.
Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

SCANDINAVIA BELTING — FEDERAL ENGINEERING & SUPPLIES LIMITED — TORONTO

Use this belt on The Direct Drives In Your Mill

On drives of this nature Scandinavia will outlast most other belts with a saving in first cost of from 20 to 40 per cent.

This is the original solid woven belt and its service speaks for itself.

Other lines of Belting;

Lanco Balata
Teon
Leather

Federal Engineering Co., Ltd.

Toronto - Montreal

This engine is 13½ ins. x 18 ins. and weighs 35 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run. Oil or coal burning.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

Grey Iron Castings—any size or shape—ordinary or intricate - made promptly. New foundry, splendidly equipped. We would be pleased to quote on castings—singly or by contract. We also make drop forgings of all descriptions.

MAY WE SEND YOU SPECIFICATIONS?

Canadian Locomotive Company, Limited, Kingston, Ont.

Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,
December 20th, 1912.

FIR TIMBERS FIR FINISH

Fir Casing, Base, Interior Finish and Mouldings

RED CEDAR SHINGLES CEDAR BEVEL SIDING

E. H. HEAPS & CO., LIMITED

VANCOUVER, B.C.

Mills at Ruskin and Vancouver, B. C. | HEAD OFFICE: 445 Hastings St. West, Vancouver, B. C.

Your Lumber Horse Needs

A talk with the Lumberman of Canada on the modern and sanitary system we have installed to serve your requirements.

FINANCIAL RESPONSIBILITY.—We are in a position this season to supply the lumber trade with the finest heavy horses suitable for camp work. We have shippers in the very best heavy horse district in Western Ontario, who make personal selections and take only the best. Every horse we ship out is guaranteed to be just as represented by us as to age, soundness, weight and quality—there is more than two million dollars behind this guarantee. These horses can be delivered off the incoming cars and transhipped in an hour from our yards.

SERVICE.—Our barn accommodation is up-to-date in every particular and has stabling accommodation for 500 horses. A track is also maintained for exercising horses while on the company's premises.

SANITATION.—Believing that prevention is better than cure, and to give the very best service possible we have this year employed a veterinary surgeon under salary. A daily and most thorough inspection is made by him of the entire barns and in this way the slightest indisposition is noted and the animal suffering immediately removed to the hospital on the grounds. "Safety first" is our motto in this respect.

TRANSPORTATION.—Our premises being directly on the lines of the C. P. R., G. T. R. and C. N. R., our rail facilities are such that we are in a position to ship on an hour's notice, and loading and unloading chutes are located right at the barn doors.

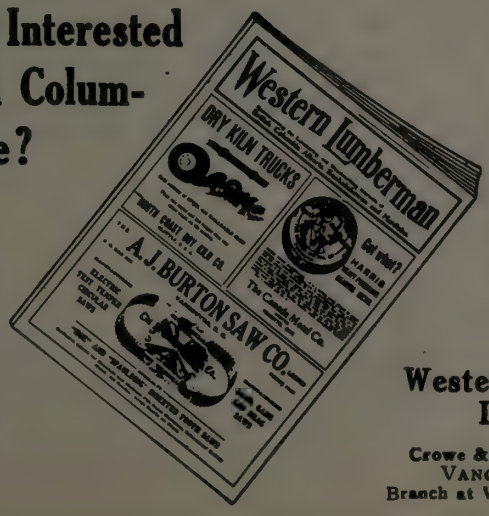
We gladly invite inspection of our entire system. Come and let us show you the most modern and sanitary system in Canada.

Union Stock Yards of Toronto, Ltd.

Horse Department: **Wm. Read, Sales Manager**

FULL VALUE FOR YOUR MONEY

Are You Interested in British Columbia Trade?



The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.

There is undoubtedly a big market for Mill Equipment of all kinds. Let us Demonstrate our Advertising service. We please others, we can please you.

Western Lumberman

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

DIXON'S SILICA GRAPHITE PAINT

When you paint your exposed metal work and machinery, consider the durability of the paint used—its actual protective value. Dixon's Silica-Graphite gives more permanent and lasting effects because of the use of two practically inert pigments—silica and graphite—in pure linseed oil, which form a firm, elastic veneer over the metal excluding all destructive agents. Dixon's Silica-Graphite is an inexpensive form of metal insurance.

Send for "Protective Paint" Booklet No. 238-13.

Made In JERSEY CITY, N.J., by the

Joseph Dixon Crucible Company

ESTABLISHED 1827

The Mark THE E. LONG MANUFACTURING Co SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

Efficiency at the Tail End

The installation of a "Long" lumber trimmer will insure the economical handling of all the lumber your mill can cut.

They are built in several sizes—all simple, solid and inexpensive.

May we send you the bulletin?

The E. Long Mfg. Co., Limited, Orillia, Canada

AGENCIES:

Vancouver—Robt. Hamilton & Co.
Calgary and Edmonton—Gorman, Clancey & Grindley, Ltd.
Winnipeg—The Stuart Machinery Co., Ltd.
Montreal—Williams & Wilson, Ltd.

WATEROUS SAWMILL MACHINERY

Mills Like This, Fifty Years Ago—

Earned for Waterous Sawmill Machinery the reputation which it enjoys today—of being the most up-to-date, most economical, nicest operating equipment in the country. Many old time lumbermen will recall the real success achieved by the old Waterous "Clipper" mills in those days when the lumbering industry was beginning to boom in Canada.

Sawmilling conditions and sawmill machinery have changed since then, but the reputation of Waterous equipment has remained the same. To-day, fifty years of experience are combined with the best engineering and mechanical skill to produce the Waterous Machinery that is being used in more than sixty per cent. of the sawmills of the Dominion.

We build everything from a Portable Outfit to a 200,000 ft. mill complete. Our catalogues and any information we can give you are at your service

The Waterous Engine Works Co., Ltd.

Brantford, Canada

Vancouver, B.C **Winnipeg, Man.**

$5,000,000.00
worth of mixed metal sold annually.

"FROST KING" METAL

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.**

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

President and General Manager D. C. CAMERON, Winnipeg
Secretary-Treasurer, WILSON BELL, Winnipeg

The Rat Portage Lumber Co. Ltd.

Manufacturers of

Fir, Cedar and Spruce LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

The J. C. McLaren Belting Co.
Limited
General Mill Supplies MONTREAL

Free your factory with a "Foster" Fan.

The Powers are at War!

We are at war with power. Let us overcome the power enemy with the

EFFICIENT "FOSTER" FAN

Exhaust Systems for removing Shavings and Sawdust in Woodworking Plants, Lumber and Sawmills.

Sawmill Men Attention! This is the only blower which has ever handled green shavings and sawdust successfully.

Sawmill men who have installed this blower declare that they would not now be without it.
Why speculate when people who know how are at your service. Particulars on request.

TORONTO BLOWER CO., 156 Duke St., Toronto

Vol. 34 Toronto, December 1, 1914 No. 23

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

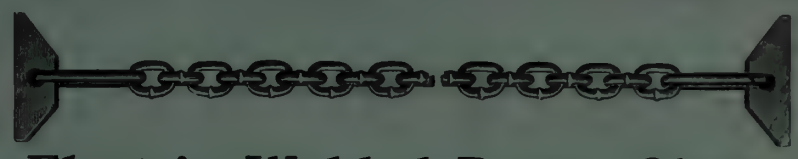
Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.



Electric-Welded Boom Chain

25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

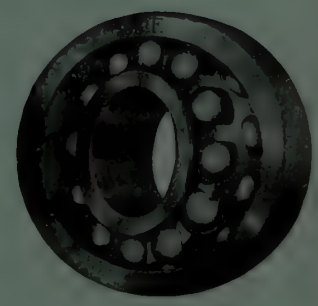
McKinnon Chain Co., St. Catharines, Ont.

Save 20 to 40 per cent of your Transmission Losses

Install U. G. Hanoers (made in Can.) **and Skelko Ball Bearings** (made in Eng.)

They require no rearrangement of a plant already installed nor departure from well established mill practice.

They insure the most sturdy, highly efficient and economical method of line shaft power distribution.



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"Red Line" and "Red and Blue Line" and Plain Grades.

MADE to conform to the requirements of the Associated Factory Fire Insurance Companies and is approved and accepted under every high-grade flax-hose specification.

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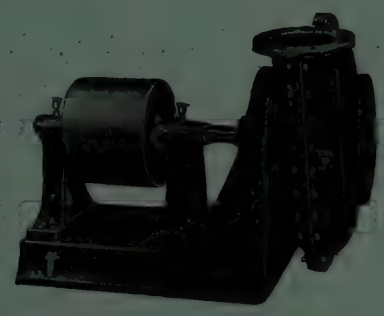
"CAMEL HAIR" "CAMEL" BRAND BELTING (TRADE MARK REG.)

STOCKS 2" TO 24" WIDE



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They are Made-in-Canada.
They are carefully designed.
They are well and substantially built.
They are ultimately the cheapest, because the best.

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"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

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Hundreds of Lumbermen and Construction Contractors can tell you why they've finally used the Vulcan. They get the greatest oven capacity a turnover of 15 gallons of piping hot water as many times a day as they want it and splendidly cooked food.

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Wouldn't it pay you to have a Vulcan Range up at your camp? You bet it would. Anyway it would pay you to make further investigations; get free booklets dealing with Camp Lines. Send for one.

A Stove All Will Appreciate

Oxford Camp Heater

A dandy Camp Heater. One with the weight and Camp conveniences built into it. Holds an exceptionally large stick and throws off a splendid glow of heat. This is the Heater to toast the hands and feet in cold weather and enable all to defy Jack Frost and Zero. The Oxford Camp Heater is made in three sizes. There's a size to suit your requirement. Send for a free booklet.

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Montreal, Toronto, Hamilton, Winnipeg, Calgary, Vancouver

Gurney Oxford Goods are Made in Canada

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View of logs in Sturgeon River

White and Norway Pine Dimension Timber

6 x 6—12/16′,	25,000′	10 x 10—12/16′,	65,000′
6 x 8—12/16′,	50,000′	10 x 10—20/24′,	52,000′
8 x 8—12/16′,	25,000′	10 x 12—16′,	45,000′
8 x 8—20/24′,	38,000′	12 x 12—11/14′,	34,000′
8 x 10—12/16′,	22,000′	12 x 12—16′,	105,000′
8 x 10—18′,	16,000′	12 x 12—20/28′,	40,000′
8 x 10—20/28′,	13,000′	12 x 12—20/28′,	28,000′
8 x 12—16′,	5,000′		

When you want the best in WHITE and NORWAY PINE, write or wire us for prices.

Dressing Done on Short Notice.

George Gordon & Company

Limited

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Versatile Redwood

CALIFORNIA CLSCO REDWOOD

The wood that is readily applicable to a thousand uses, serving each as efficiently as could any wood that grows.

CALIFORNIA CLSCO REDWOOD

Cypress makes good silos, mahogany makes good trim, pine is good for siding boards, and for cooperage stock it's elm. But Humboldt air-dried Redwood can be used for these and a thousand other purposes with as satisfactory results as are obtained from each specialty wood.

Humboldt Redwood is cut from the forest of North California. It will not check, is fire repelling, beautifully figured and always clear, free from pitch, easily worked, will not shrink, takes finish equal to mahogany and is in every other way a most desirable wood for all purposes.

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Spruce, Hemlock and Hardwoods

We have on hand ready for shipment:—

1,000,000 ft.	Merchantable Hemlock 1″, 2″ and 3″, lengths 9 ft. to 26 ft., widths 4″ to 11″, each length and width piled separately.
1,200,000 ft.	Merchantable Spruce 1″, 2″ and 3″, lengths 8 ft. to 24 ft., widths 4″ to 12″, piled separately.
700,000 ft.	Hard Maple 1″, 1¼″, 1½″, 2″ and 3″, sawn on grade.
250,000 ft.	1″ and 1½″ Beech, sawn on grade.
125,000 ft.	1 x 4 & up Basswood L.R., No. 2 C. & B.
125,000 ft.	1″ M. C. Ash.
70,000 ft.	1″ M. C. Elm.

We specialize in timbers—lengths 10 ft. to 26 ft. long, and we have facilities for Dressing.

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

White Pine

Arnprior

Must Clean out before January 1st

100,000 ft.	1 x 4 and up	6/11	Mill Culls
50,000 ft.	1 x 4 to 7	12/16	" "
50,000 ft.	1 x 8 and up	"	" "
100,000 ft.	1 x 12	"	" "
50,000 ft.	1 x 10	"	" "
60,000 ft.	1 x 4	"	C and B Flooring Strips
60,000 ft.	1 x 5	"	" " "
75,000 ft.	1 x 6	"	" " "
105,000 ft.	1 x 7	"	" " "

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You Won't Be Scared At Our Prices

Hocken's Hemlock

Same Good Quality, Prompt Shipment and Normal Price

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Otter Lake Station, Ont.

TRADE T MARK (REGISTERED)

DRY WHITE PINE

2 x 7 - 12/16
2 x 8 - 12/16
2 x 9 - 12/16
6/4 x 8 - 12/16
6/4 x 8/10 - 12/16

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Lumber - Lath - Shingles
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RED PINE
SPRUCE

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BARTRAM BROTHERS, LIMITED
OTTAWA, CANADA

SPRUCE, WHITE AND RED PINE

Ask for quotations on some of the undermentioned stock

Norway Pine

1 x 4 & up	x 10/16′	Culls	1,301,250′	1 x 10	x 10/16′	Merchantable	10,584′
2 x 4 & up	x "	"	229,138′	1 x 12	x "	"	2,497′
				2 x 4	x "	"	155,852′
1 x 4 & 5	x 10/16′	Merchantable	1,041,188′	2 x 6	x "	"	207,855′
1 x 6	x "	"	328,402′	2 x 8	x "	"	283,262′
1 x 7/9	x "	"	41,239′	2 x 10	x "	"	161,731′
1 x 8	x "	"	48,083′	2 x 12	x "	"	57,663′

Your enquiries for Spruce, New Brunswick Cedar Shingles and Lath will receive prompt attention.

Attention!

Do You Need Red or White PINE?

We have the stock that you want.

W. H. Bromley
Pembroke, Ont.

We invite correspondence re

"Dalhousie" Brand
N. B. Cedar Shingles *of all grades*

Special Prices for shipment to
All Ontario Points

Dalhousie Lumber Co., Limited
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Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto

Everything in Lumber

Wholesale and Retail

Dressed Spruce a Specialty

Write or wire us for your requirements

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Limited
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For Quick Shipment Send Your Orders to Us

THE FOLLOWING DRY

Pine and Spruce Lumber

IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 "	1 x 10″	"
50 "	1 x 7″ and up	"
10 "	1¼ x 7″ and up	"
10 "	1½ x 7″ and up	"
2 "	1½ x 12″	"
5 "	3 x 6″ and up	"

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

Clear and No. 1 Spruce

10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 "	1 x 7″	"
4 "	1 x 8″	"
5 "	1¼ x 8″	"
3 "	3 x 10″ and up (mostly 11″)	"

Also "BEAVER BRAND" White Cedar Shingles—full count. Shipment by rail or water.

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White Pine, Norway, Yellow Pine, Hemlock
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STAONAL LUMBER CRAYONS
Waterproof — Permanent
Will not wash or rub off.
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Special Price, $1.00
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All Thicknesses

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Jack Pine
All grades and sizes.

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The Canada Wood Specialty Co., Limited
Manufacturers:
Lumber, Hardwood Flooring, Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.
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100,000 Ft.	5/4	1st and 2nd Basswood
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2,500 "	16/4	" " "
12,000 "	8/4	1st and 2nd Soft Elm
17,000 "	4/4	No. 1 C. & B. Soft Elm
22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8 to 16"—10 to 16 ft.	1st and 2nd White Ash
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Your Inquiries Will Have Prompt Attention

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HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

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All stock sized or matched if required.

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California White Pine
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Best Stock for Factory and Pattern Lumber

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This boy actually does the work of five men using any other machine for logging

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8,000 ft. 2 x 5, 10/16'	M. R.	Red Pine
6,000 ft. 2 x 7, 10/16'	M. R.	Red Pine
12,000 ft. 5/4 x 4 & up, 10/16'	M. R.	Red Pine
14,000 ft. 6/4 x 4 & up, 10/16'	M. R.	Red Pine
50,000 ft. 1 x 10/12, 10/16'	M. C.	White Pine

WE WILL MAKE PRICE TO MOVE THIS STOCK.

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This stock was cut early, is dry, and was taken from an exceptionally good run of logs. We are quoting attractive prices on this lumber for prompt shipment.

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Write, Wire or 'Phone for Prices - **Western Office:—Pacific Building, VANCOUVER, B. C.**

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Our business is to know the wants of the lumbermen and to meet them.

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Lumber Lath Pulpwood

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We can Dress, Match and Resaw. Order this way and save money

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The Choice of Lumbermen in two Hemispheres

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HIGH GRADE RED CEDAR SHINGLES

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Heavy Fir Dimension

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The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is positively right, and prices will please

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120 M	2 x 10	"	"	"	"	"
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45 M	3 x 8 and 10	"	"	"	"	"
65 M	1 x 5 and up, Spruce					
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250 M	1 in. Jack Pine Culls					
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4/4 firsts and seconds, 2 cars.
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6/4 firsts and seconds, 1 car.

WHITE OAK
3/8 firsts and seconds, 1 car.
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4/4 firsts and seconds, 1 car.
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Canada Lumberman and Woodworker, Toronto, Ontario

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

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1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 8-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder.

1 Double cylinder steam nigger, right hand.

1 Log Loader for right hand mill.

1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works.

1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs.

1 left-hand steam nigger.

1 Log-loader.

1 Endless chain jack ladder with two kickers complete for right and left hand mills.

2 Roger Gang Edgers for 8-in. cants and lumber.

1 Waterous double edger, 6 saws.

2 2-saw trimmers.

1 20-ft. Slash table.

1 16-ft. Revolving Slash Table.

1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works.

1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit.

1 Lath Mill with bolter.

2 Lath Trimming Saws.

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1 Automatic Filing Machine for 12-in. D.C. band saws.

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1 Automatic Machine for circular saws.

1 Hand Machine for cut-off saws.

1 Lap Grinder.

1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws.

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2 Double Duplex, high pressure Water Pumps.

5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam.

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1 Wood Machine for 22-in. wood.

1 Wood Machine for 16-in. wood.

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1 30 h.p. Generator, 250 volt.

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Arkansas Soft Pine is preferred by the architect because he may rely on it to give the service expected and to live up to its reputation.

It is preferred by planing mill operators because with it perfect machine work is assured without loss of material.

It is preferred by the retail lumber dealer because it pleases his customers.

It is preferred by the contractor because with it his men can do more and better work.

It is preferred by the painter because with paints, stains, enamel and varnish he can make interior and exterior permanently attractive and inviting.

It is preferred by the owner because it gives him full value for every dollar he invests in a building.

It is one item of stock for which there is a regular demand in hundreds of yards. Are your customers buying it?

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Eagle Lumber Company	Eagle Mills, Ark.
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Fordyce Lumber Company	Fordyce, Ark.
Freeman-Smith Lumber Company	Millville, Ark.
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GOODYEAR
MADE IN CANADA
Saw Mill Belts

"Imperial"

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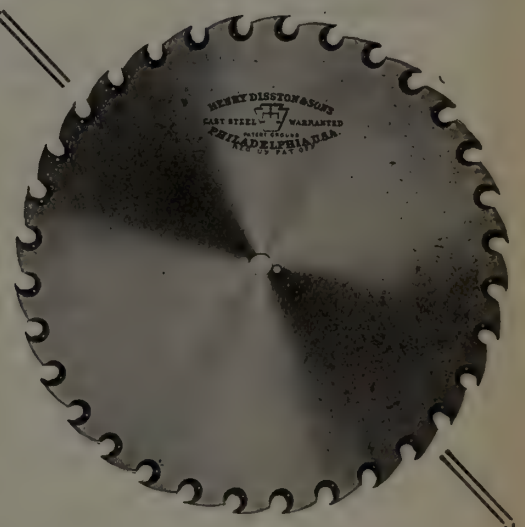

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The Jump Saw machine is very valuable for use between live rolls. We also build all of the iron work for a Wood Frame Jump Saw.

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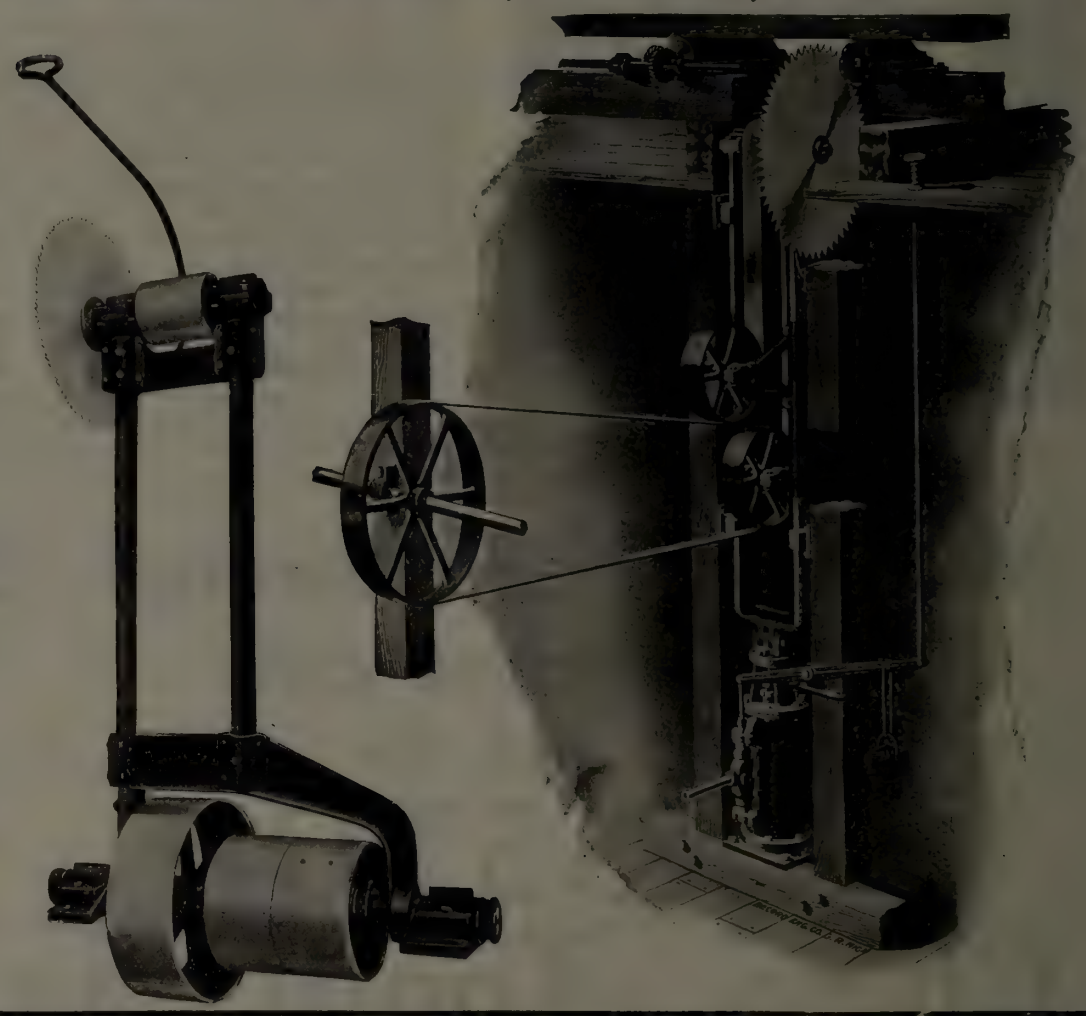

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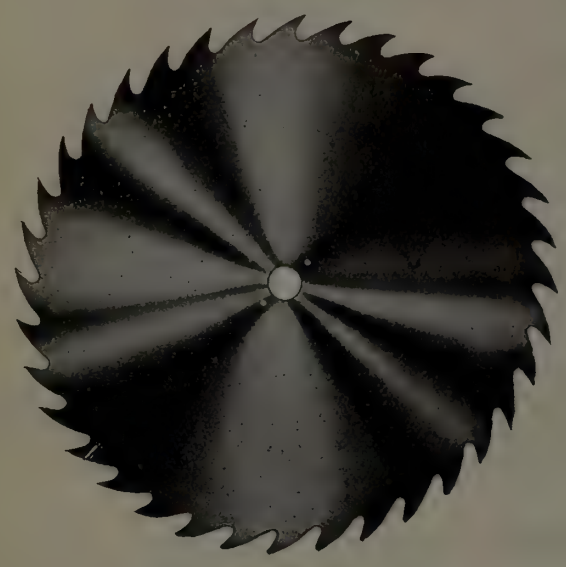

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Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Authorized by the Postmaster General for Canada, for transmission as second class matter.

Entered as second class matter July 18th, 1914, at the Postoffice at Buffalo, N.Y., under the Act of Congress of March 3, 1879.

Vol. 34 Toronto, December 1, 1914 No. 23

Birch as a Stock for Dump Wagons

Following an article published in the Canada Lumberman of November 15th which gave the views of a wholesale lumberman in regard to the purchase by important lumber consuming industries in Canada of Canadian birch, through United States wholesalers, we have received a letter from a Canadian carriage manufacturer criticizing the statement that Americans use birch in wagon manufacture.

The point referred to was the statement that Canadian manufacturers of wagons were using high-priced oak from the United States for purposes for which Americans were importing Canadian birch at a lower price with equal satisfaction, and that these same firms suffered very much from the competition of American wagons in which Canadian birch was used. The letter we have received says: "There is not very much of a puzzle about this, because no reputable wagon manufacturer in the United States uses birch in his wagon, and neither would any Canadian manufacturer of wagons think of using birch instead of oak. There are not by any means as many American wagons used in Canada as those of Canadian make."

Whoever may be right in this matter, the thing the Canada Lumberman is interested in, is to place before its readers the situation as it appears to both sides. We published the interview with the wholesaler in the first place so as to put his views before the large number of lumber consumers who read the Canada Lumberman, hoping that some of them would reply and explain the situation from their point of view and that, in the end, we might be the means of bringing the consumers and the producers a little closer together. We think that the discussion of the matter in these columns will do good and we hope that others will let us have their views, not with he idea of stirring up any dispute, but with the idea of helping to clear up the situation.

With this hope in view, the statement made by the carriage manufacturer was shown to the wholesaler and his reply was as follows: "We know of two of the largest manufacturers of dump wagons in the United States who use enormous quantitits of birch in preference to any other wood. They put it into the sides and ends of their dump wagons." To emphasize the point he showed the Canada Lumberman his order book which contained large orders for birch from these firms. Moreover, he declared that he knew of other Canadian firms who were selling birch to these companies and others in the same line of business.

In his interview this wholesaler had stated that there were as many of these American dump wagons used in Canada as Canadian wagons. While not able to substantiate this with figures, he states that, by his own observation, he is certain that enormous quanities of American dump wagons are used in Canada, and this being the case, he cannot understand why the Canadian manufacturers fail to use the same class of stock as the United States manufacturers who undersell them in the Canadian markets. The case is all the more interesting he says, because one never sees any Canadian wagons of this class in the United States. For the sides and ends of dump wagons, the class of stock required is a good, tight, close-grained, strong stock, for which, this wholesaler asserts, Canadian birch is quite famous.

In reply further to the wholesaler the carriage manufacturer in a letter to the Canada Lumberman says: "I know that dump wagons are built in New York State and so far as I know, they may be using birch in the boxes, but the number of dump wagons manufactured, as compared with the number of farm wagons manufactured, is very small. There are not many American dump wagons coming into Canada now, nor for the past year or two, and there will be fewer than ever imported. I still maintain that there is not one single farm wagon manufacturer in the United States who uses birch to any extent in his product. There are a thousand farm wagons made where there is only one dump wagon made. . . . . The running gear of all wagons is made out of oak and hickory and it will be a long time before birch will be considered as a substitute. The boxes are made of poplar, cottonwood or gum, and there is not a wagon manufacturer in the United States, or Canada, who would think of using anything other than these five woods.

This is how the matter stands at present, so far as the wholesaler and the consumer who have given us their views are concerned. All the reports published by the governments both in Canada and the United States agree in impressing upon lumber consumers the fact that a great deal of improvement can be brought about in connection with the economic use of lumber, and a point to which attention is most frequently drawn, is the large amount of imported stock used, upon which heavy freight charges are paid, when it might be possible to use wood that is grown far nearer to the point of consumption.

This is the real point at issue in the above discussion. It is not so much a question of the use of native woods in one country or the other, but rather a question of the economic use of the best class of wood that can be secured with the lowest freight charges.

Will Fight Against Substitutes

Evidently the strong campaign which is being carried on in the United States by manufacturers and distributors of so-called fireproof building materials, against the use of lumber is at last being given its proper share of attention by the lumber-producing and selling business in the United States. We are glad to note also that the lumber industry and trade in Canada are, to some extent, aware of the danger involved in this situation, inasmuch as the campaign is more than likely to be carried into Canada in the very near future.

The movement which was started in the United States a year or so ago in favor of the inauguration of a general advertising campaign to promote the use of lumber had this matter as its chief factor. The recent very successful Forest Products Expositions held in Chicago and New York were largely the outcome of the general appreciation of the importance of counteracting the campaign in favor of the substitute materials. These two developments have clearly pointed out that further and much more definite steps must be taken in order to meet the very critical situation which has developed. Lumber manu-

facturers in the United States knew that something should be done along these lines. They have now come to realize, however, that they cannot accomplish much without the active co-operation of the distributors. The interest of the wholesalers and retailers has fortunately been aroused by the activities of the manufacturers of substitute materials, and it is now believed that the time is suiable for developing a widespread co-operative campaign on the part of all who are interested in the use of lumber. It is quite evident to-day that wholesalers and retailers are willing to co-operate with manufacturers especially in taking steps to prevent passage of anti-wood ordinances promoted by competitive interests. Manufacturers are ready to co-operate with distributors through the associations already in the field.

For the purpose of discussing the whole subject the National Lumber Manufacturers' Association now announces that it proposes to call a general conference of representatives of all branches of the trade to be held in Chicago during the month of January, 1915. An invitation has been issued to the officers of all these associations to attend a preliminary meeting at Chicago on December 15th in order to arrange a programme. The intention is to arrange for addresses by men qualified to discuss the extent of the inroads of substitute materials upon the lumber market, comparative costs of building materials, the discrepancy between building codes, the publicity methods used by substitute manufacturers, the extent of co-operation possible between the lumbermen of cities in relation to legislation, statistics and the holding of local Forest Products Expositions with the materials furnished by the manufacturers.

The Canada Lumberman believes that if a campaign of this kind is inaugurated and carried out vigorously, it will involve great benefit for the lumber trade in which manufacturers, wholesalers and retailers will all be benefitted. On the other hand, unless something of this nature is done and done quickly and thoroughly, the lumber business will always have this thorn in its flesh, and will be losing a very material volume of business annually. Elsewhere in this issue we have published two interesting letters received from our readers, one of which takes the point of view that a campaign in favor of fireproof materials and against the use of wood as a building material is a movement to be greatly commended. The other letter takes the view that the lumber industry is unfairly attacked by the fireproof materials people, and that statistics and facts all point to the conclusion that lumber is not only a valuable building material, but, in conjunction with the use of automatic sprinklers, is an eminently safe and economical material. These two letters present the opposite points of view very definitely and briefly, and we believe that the perusal of them by our readers must lead to only one conclusion, namely, that those who oppose the use of lumber in mill construction, moderate sized office buildings and residences are not justified in doing so.

The arguments used by those who are warring upon lumber, in their publicity, are frequently so clearly of a biased nature as to injure their cause if they are examined critically. Nevertheless by means of such material, spread over the daily press, where it is widely read and not very closely examined, the fireproof campaign is making remarkable headway. The lumber interests can, in a short time, make just as good headway and, on account of the strong case which they have to present, their argument will be much more effective in the long run.

The arguments against lumber are so frequently based upon untruths that they will be easy to refute. For instance, much has been made of the statement that frame buildings ought not to be allowed within city limits. Frame buildings have been condemned as fire traps which cause fires to spread and become conflagrations. In spite of these claims, the fire records of Chicago during the year 1913 show that the average frame dwelling is safer from fire than the average brick dwelling. Moreover it is shown by the same records that the number of fires in brick buildings was greater than the number in frame buildings, in proportion to the number of buildings in existence. It is argued further, by the opponents of lumber, that frame buildings increase the risk of a large conflagration, yet the history of the great fires in San Francisco, Baltimore, etc., show that buildings of brick and stone vanished as completely before the great wave of fire as wood could have vanished. In the Baltimore fire the fireproof buildings are shown to have suffered a loss running as high as 98 per cent. in many instances. A great deal is said of the greater merit of brick and stone for the walls of buildings, but nothing is said about the fact that the contents, furniture, etc., and many other parts of the buildings except walls and roof are combustible and that the fire seldom originates in the outside wall. They urge a man to put up a brick building when he wants a frame building, and lull him into a false feeling of security resutling in the occurrence of fires from carelessness.

It is not necessary to multiply references to these points. The gist of the whole situation is that the outcry against lumber is, to a very great extent, based upon self-interest and encouraged by the facility with which one can impress the majority of the public by means of sensational head lines in their daily papers. It is an outcry which is certain to meet with a very considerable measure of success, even if it is strongly opposed, but without such opposition it is practically certain to bring upon the lumber industry an enormous loss.

The Tump Line Band from Northern Canada

Many years ago, at the time of England's war in the Soudan, when she needed skilled river men to guide her transports of floating rafts loaded with men and supplies, on their long voyage on the river Nile, a body of Canadian river men, accustomed to driving the timber rafts of those days down the great inland rivers of Canada, was formed and sent out to do the work. The "Nile Voyageurs," as they were known, were one of the most picturesque and valuable features of that remarkable campaign, and Canadians were proud of the part which this hardy body of men took in England's war. Since those days many things have happened. The last timber rafts have floated down the Ottawa. The days of the old square timber trade have passed and with them have passed that splendid generation of men who knew the ways of the rivers so intimately; but the spirit of the northland is still found among the men of the lumber camps and the mines, and many of the men of our northland frontier, if called upon to-day, would be glad to respond to the call to go to the front and fight for Great Britain. Canada is sending a creditable-sized army to take part in the war. Our contingents are made up of trained men who will compare well with any others engaged in the war. Among the northmen of Canada however, there might be formed a hardy band of soldiers who would unquestionably be specially adapted, both by nature and experience, for giving valuable service to the Empire at the front. They would have the advantage of their life-long experience in the open-air struggle with nature. They would supply a body of exceptionally capable men. A few communications which have recently appeared in the daily press show that many of these men are ready, waiting only for the call.

The special fitness of the men of northern Canada for fighting the battles of the Empire, comes from the life they have led. They art accustomed to hard pioneering work. They know the open-air, the woods, the rivers and the lakes. They are resourceful, vigorous and daring, and, what is of practically equal importance, ammenable to discipline. They have been trained in the life of the woods and rivers and can stand fatigue almost better than any other class of men. They can maintain themselves and look after themselves when far from their base of supplies better than any other class of men. In short, their life has fitted them especially for the work of campaigning against the enemies of the Empire, and since some of them have openly expressed their readiness and desire to take up their share of the work, the government must surely accept their services.

Attention was first drawn to these men as a possible source of recruits, we believe, by one of their number who wrote to the daily press, complaining almost bitterly of the impossibility of taking part in the war. He and his fellows seem to be almost excluded from joining the contingents, because of the regulations regarding recruiting. Many of them are beyond the age limit, or have other draw-

backs which place them outside of the available supply of recruits; but they have sailed the lakes, built bridges and mills, surveyed and prospected, and in general fought the open-air fight against nature all their lives. The letter written by this man of the north is almost pathetic in the simplicity of its appeal. "I can ride and shoot and cook a camp meal for over a dozen men, or drive an eight mule team" he says. He admits that he has lost a tooth or two, but he can tramp thirty miles and is as hard and fit as any man. "What means is there for us to enlist and go to the front?" He asks—"not to watch bridges. We are willing to go as privates and trust to our own efforts if we are to gain promotion."

These men naturally would prefer to leap over many of the barriers of training and go right into the business of fighting. They do not expect to have such a privilege, but they are so much in earnest that some of them have already taken steps to prepare themselves in case they are called. Mr. John Gray, 312 Indian Road, Toronto, who has spent much of his life in the north and knows these men, says that they are absolutely self-reliant and have overcome obstacles of every description by their own efforts. They never turn back. They belong to the great tump-line band of the north and want to be ready when the call comes. During August, Mr. Gray says, a number of them were talking the matter over and decided to form a tump-line band of 100 from among the men they knew. The word was passed along and the result was that a steady stream of applications to join was received. Soon there were over 300 enrolled. The only requirements were that they should be abel to shoot quick and straight, to take care of themselves in the open in any kind of weather and to pack thirty miles with a fifty-pound pack and tump-line. Their enthusiasm and patriotism are such that they have quickly got ready and are saying very little about themselves, but are waiting in confidence that if they are needed they will be called. Mr. Gray is still receiving names of those who wish to join the band. The Canada Lumberman hopes, and believes, that every lumberman in Canada would like to see the men of the north get their chance. Everyone who knows them and their manner of life, knows also that the service they will give upon the field of battle will be of priceless value.

Editorial Short Lengths for Busy Readers

An interesting example of the former dependence of many important industries upon products secured from Germany, and their efforts to obtain, or produce in some other manner, the goods which they are now unable to obtain from that source, is afforded by the case of the E. B. Eddy Company, of Hull, P.Q., and in fact of practically all Canadian paper manufacturers. Since the opening of the war paper manufacturers have been searching for suitable substitutes for the chemicals and dyestuffs used in paper making. In the past, these have been obtained from Germany. The chemists of the E. B. Eddy Company are now making extensive experiments in this connection and it is reported that they have already met with some success. It is expected that Canadian pulp and paper manufacturers will apply for the suspension of certain patents, held in Canada by Germany. for the manufacture of some of these products necessary in pulp and paper manufacturing, so that they can be manufactured in Canada by Canadians.

Through new specifications for axe, sledge, adz, pick and other hickory handles, the Panama canal authorities have recently purchased large quantities of this class of material for one-fourth less than formerly paid, and at the same time are getting just as serviceable stock. The war department and the navy department, as well as the Panama canal commission, have adopted these specifications, which were prepared by the forest service primarily for the use of the various branches of the federal government. Subsequently, however, they have been approved by the trade, both manufacturers and dealers, and adopted by several of the leading railroads.

The new rules are the result of a long study of the subject, covering exhaustive strength tests, investigations of the growth of hickory in the woods, processes of manufacture, and market conditions. Under the new specifications handles are selected according to weight, as influenced by the density of the wood, and they now include material which may be either partly or wholly of heartwood, known generally as red hickory. Red hickory was formerly discriminated against in commercial grading, but it is now accepted, since it has been found that weight for weight it is just as serviceable as the white hickory. Handles which contain small sound knots or bird pecks, so located as not to affect the strength, are also accepted.

"Lumber dealers in Toronto report that business is quiet," says a recent issue of Bradstreets. "While the lumber business at this season of the year always tends to be a little slow, it is more so than usual this year owing to the marked falling off locally and outside in building operations, dullness in the furniture trade, etc. The fact that construction work throughout the Dominion is almost at a standstill is also a factor responsible for inactivity in this market. Rough materials for trestles and other temporary structures are no more in demand than building materials, box lumber or those woods used in the manufacture of furniture. While some wholesalers state that prices with them have remained stationary local retailers say that they have been forced to let considerable of their stock go at recessions in price which is a condition to be expected in times of tight money and poor demand. With regard to the latter the falling off in demand is partly due to the restricted volume of merchandise moving. The usual fall requirements of wood for apple boxes as well as the heavy movement of canned goods, however, are factors of much benefit to the trade. The development of trade with the United Kingdom as a result of the closing of the Baltic ports is considered by Toronto lumbermen as likely to create considerable activity in the spring. Meanwhile those companies interested in the pulp industry of course are enjoying good business as the result of the increased demand for news print.

Students of history are well aware of the fact that the foundation of the lumber industry of the Maritime Provinces was laid during the period of the great Napoleonic Wars in Europe. About the opening of the Nineteenth Century, the whole of Europe, with the exception of Russia and England, was practically under the domination of Napoleon. Great Britain, secure behind her "wooden walls" and Russia strong in her "snowy steppes," were the only countries of any importance whose destinies were not controlled by Napoleon and his givernment. It will be recalled that following the battle of Jena in 1806, when Napoleon humbled the power of Prussia, that he issued from Berlin what is known in history as the "Berlin Decrees," which forbade the nations of Europe to trade with Great Britain. The Motherland on her part made a counter-blow by proclaiming the famous "Orders-in-Council" prohibiting the nations of the world from carrying goods to a large number of French and other European ports controlled by France. Up to that time, Great Britain was dependent largely on Norway, Sweden and the ports on the Baltic Sea for her supply of shipping timber. The supply being practically shut off by the Berlin Decrees and the effects of the war, she turned to her colonies to obtain her supply of lumber for ship-building and for other purposes. An era of prosperity dawned on this side of the water about that time. Picton, Yarmouth, Lunenburg, Campbellton, Chatham, Newcastle and dozens of other seaboard towns began exporting lumber to Great Britain in large quantities, and in time this lumber was sent across the Atlantic in Maritime-Province built ships. Remarkable to state that, today, almost the same conditions obtain. Owing to the blockade of the Baltic Sea by German ships, it is impossible for England to draw any supply of lumber from Russia, Swedish and Norwegian lumbermen have reduced their operations owing to the fact that the North Sea, on account of the extensive fields of mines that have been laid by Germany and Great Britain, is not considered safe for shipping. Hence we find that in New Brunswick and throughout Nova Scotia the larger lumber operators, who possess a spirit of enterprise and energy are going to take advantage of prevailing conditions and are planning an active winter's work in their different lumber areas.

The Reader's Viewpoint on Trade Topics

Campaign Againt Lumber Stirs Up Criticism of Alleged Fire Proof Material Publicity —Consumer Wants Uniformity of Grading

Lumber Ready to Meet Legitimate Competition

Editor Canada Lumberman:— Chicago, Ill., Nov. 19th.

Your letter of November 2nd relating to "a campaign against the use of lumber," has reached me.

Lumber must frankly meet the legitimate competition of rival structural materials. If their methods of publicity or their superior salesmanship give them an advantage they are entitled to it, and if we cannot meet them on such a field, they will hold that advantage.

We are getting a new line of illustrations in these days which may serve a purpose just here. Lumber has long been entrenched behind habit and custom. It is a wonderfully flexible, and livable material, and it is comparatively cheap. We lumbermen of this day inherit the traditional reputation of lumber—but these are days in which old-established preferences and forumlae are being challenged. We have been too easily-content to take our ease in our old fortifications, not realizing that modern progress was throwing shells and aerial bombs at us, and also undermining our whole structure. This is the day when we know that offensive warfare wins against defensive warfare. The question is, how shall we apply that fact to our business?

The "fire-resisting-material" men have allied themselves with the fire insurance men, first of all. That is a big advantage to start with, because at first thought the fire insurance men seem to be doing the public-spirited thing when they spend their money and their energies to "reduce fire waste" and to "conserve life and property." Furthermore, they have the sympathy of the head-line public, because they are assumed to be "experts" in all matters relating to fire waste and building construction, and in making proper and equitable premium rates.

Now here is a curious fact. The insurance men have been pushing their "fire protection" propaganda for many years, but **fire waste has not diminished**—either relatively or in the aggregate.

What is the natural inference? Is it not this: that their methods are the wrong methods?

We ought not to expect too much in any limited time, but we ought to expect something which tends to prove that the scheme is all right if you give it time. The proof is against the scheme, so far.

At the Fire Prevention Convention in Philadelphia last year it was agreed that no material and no structure is entitled to be called **fireproof.** The best that can be said is that one is more fire **resistant** than another.

The rotten spot in the insurance system is easily detected. Fire-resistant buildings housing combustible materials, or exposed to exterior fires, are **not "fireproof."**

The fire insurance men know that, but they stop short of the remedy. As long as combustible materials are housed in structures, so long fires will occur, and some adequate provision must be made for putting out the fire, or loss will occur, and may be a great loss.

Just here comes in the joker. The device that completely meets the need—within practical limits—is the automatic sprinkler—that smothers the infant fire,and no harm comes of it.

And this is how the Joker affects lumber; it **puts out fire in a wooden** building just as well as in a **fire-resistant** building. A fire-resistant building to be safe must be sprinklered, and when sprinklered it is no safer than a **wooden** building when sprinklered.

Is that plain enough? That is the effective line of attack to overcome the attack by the fire insurance and fire-resistant-material men.

There is a lot of detail to be considered. The balance must be struck in each case between value and hazard and cost and the public welfare.

Police regulations which destroy unjustifiable hazards are an aid on one hand. Building regulations, sane and practicable and unprejudiced, to prevent unjustifiable creation of new hazards, are an aid on the other hand. Neither of these hands should be raised against lumber or any other material, except for cause.

Why does the insurance man prefer fire-resistant buildings unsprinklered to wooden buildings sprinklered?

The answer is easy; because he can make more money out of it under the present system of rate-making and business-getting. A sprinklered mill construction building gets a lower rate than an unsprinklered fireproof. As the insurance agent is paid a commission on the amount of the premium, the higher premium looks best to him. The insurance company is satisfied, because it controls the rate and can make that high enough to satisfy its idea of thrift. Human beings are not safe in unsprinklered fireproof buildings. They are safe, within practicable limits, in sprinklered mill-construction buildings.

Fire-proofed lumber and shingles are unnecessary—keep them sprinklered and they won't burn from any inherent fire. The problem of conflagrations is not so difficult to deal with as the insurance men pretend it is. A conflagration fund of five per cent. of all premiums collected for three or four years and honestly administered would take care of all conflagrations ever afterward, if such police and building regulations as I have indicated went hand in hand with suitable installations of automatic sprinkler equipment. If the lumber fraternity would clearly size up the problem and its solution, and then ally itself with all the trades which utilize and depend upon lumber and then collectively boycot every insurance interest that fights lumber unfairly and underhandedly, the fight would be won.

The automatic sprinkler is the strongest ally that the lumber business can possibly tie up with. Now is the time to go about it.—Geo. H. Holt, President Holt Timber Company, Limited.

Should Organize to Oppose Campaign Against Lumber

Editor Canada Lumberman: November 20th.

We are interested in the article which recently appeared in the Canada Lumberman under the heading "A Campaign against the use of Lumber." As we are manufacturers of lumber, we do not come in contact with the building trade and do not feel capable of passing any comment on the subject. We realize however, the serious effect that an organization opposing the use of lumber would have on the lumber industry. It would appear to us that the wholesalers in the cities ought to organize with a view of getting in touch with the architects and contractors in their cities and demonstrating to them the many ways in which lumber can be used in place of other structural materials. We also think that the Canadian Lumbermen's Association ought to take this matter up, and when this movement, which seems to be strongly organized in the United States, crosses into Canada, have ready an organization capable of coping with the situation.—Manufacturer.

Senator Edwards Approves Fire Proof Campaign

Editor Canada Lumberman: Ottawa, Ont., Nov. 3rd.

Answering yours of yesterday regarding fireproof building materials: When one is giving his opinion on any subject affecting the general interest, he should take a broad view and have in mind the result to the community, regardless of his personal interests.

The document which you enclosed states that a campaign is in vogue in the United States advocating the construction of fireproof buildings, the intention being to eliminate the fire risk to as great an extent as possible, and you desire me to give an expression of my opinion on such campaign; to which I have no hesitation in replying that it is one of the most meritorious campaigns I have heard of, and if carried into effect, not only in the United States but in every country, will contribute most enormously to the enrichment of the world, by very largely eliminating the enormous loss sustained annually through destruction by fire. A certain number of narrow-minded, selfish lumbermen no doubt will protest, but I cannot understand any far-seeing lumberman doing so.

A sudden change in conditions of construction on a large scale would temporarily affect the lumber trade, but even should it do so, can there be any justification for opposing that which would be so beneficial to the world at large. The fact cannot be overlooked that the present world supply of lumber, relative to its consumption, is very small, and what appears to me the great question, is, where the world is going to get its supply of lumber, say thirty or forty years hence. From my standpoint, there can be no greater blessing than an advocacy of fireproof construction. In factory, warehouse and all such buldings, even to the construction of saw mills, the use of lumber should be eliminated to the greatest possible extent. I do not think the same elimination could comfortably take place in household construction, but to my mind, it would be a great feature if dwelling houses could also be made perfectly fireproof, or as nearly so as possible, and I fail to see why such should cause lumbermen any worry. My fear is that too soon there will be a world-wide famine in lumber, and instead of opposition to its elimination in building construction, the very reverse should be the case. On the other hand, the strongest advocacy should take place for the preservation and perpetuation of our forests and for tree planting, having the object of creating further forests.

In my opinion the question is not how much of our existing supply of lumber we can put into use, but how can we preserve and perpetuate our forest resources, for no matter what restriction goes into effect in the matter of building construction, enormous quantities of

lumber for many and various purposes will always be required, and the great and important question, looking but a few years ahead of us is: Where is it to come from?

In case any of my friends who should observe my views on this question are inclined to criticize me on the ground that I am advocating the use of cement, knowing that I am the president of a cement company, my answer is a simple one; I have lived for seventy years on producing lumber. I have never made enough out of the cement business, and do not expect to in the near future, to enable me to subsist for six months.

Wm. C. Edwards.

Iron and Concrete Don't Make Fire Proof Buildings

Editor Canada Lumberman:— Bay City, Mich., Nov. 6.

The articles which have been appearing in the American Lumberman are pretty convincing evidence that the use of iron and concrete in the construction of buildings does not make fireproof buildings and that they are no more desirable than wood. Most buildings that are called fireproof are not fireproof and are not any safer in many cases, so far as fire is concerned, than well constructed wooden buildings.—E. B. Foss & Company.

Consumer Wants Uniform Grading

Editor Canada Lumberman: Preston, Ont., November 21.

I have read the article, which appeared in the Canada Lumberman of November 15th, giving the views of a wholesale lumberman in regard to the uses of Canadian hardwods, and was very much interested.

The answer, in my opinion, is easy. Having been using, and purchasing both Canadian, and American hardwood for the last thirty-two years, I find, that the grading on the American side, is much better than the grading on the Canadian side, and that it will pay me better to give a few dollars a thousand more for well graded lumber, than for poorer graded lumber. This, I think, is the experience of most manufacturers. That and that only, is the reason why the American lumber so often gets the preference.

While we are on the subject, why not get the pine sawyers to adopt a uniform standard of grading. **We manufacturers have the greatest difficulty in specifying by name the grade of white pine, which we want to buy, as each manufacturer has a name, and classification for different grades, and as we are not mind readers, we cannot tell until we see the lumber, what the pine man's pet names for his grades represent.**—Don. M. Campbell, general manager, Preston Car & Coach Company, Limited.

Canadian Birch for Piano Stock

Editor Canada Lumberman: Woodstock, Ont., Nov. 19th.

We have read the article published in the Canada Lumberman of November 15th regarding the use of Canadian birch. We can scarcely conceive of a Canadian manufacturer buying birch lumber in the United States. We have never thought of doing such a thing. All our requirements in this line are bought from Canadian manufacturers. About the only lumber we import from the States is quarter-sawn white oak and poplar. True we buy a few cars of chestnut but the Canadian supply of this class of lumber is limited.—Karn-Morris Piano & Organ Company, Limited.

A Hint to the Man Higher Up

Editor Canada Lumberman: Does it not seem a senseless task appealing to the people of Canada, through newspaper, street car and billboard advertising to use Canadian manufactured goods, when the municipal, provincial and Dominion building departments pass specifications calling for American lumber almost exclusively? Take for example public schools throughout the Province. Georgia pine joisting is called for when red pine or hemlock would answer just as well. It might be here mentioned that Georgia pine grading rules allow 1⅞-in. thick to pass for 2-in. grading. Canadian hemlock, spruce, red or white pine must all be cut to dry 2-in. thick or they would immediately be condemned. There is a small difference in the American and Canadian prices, but, if the above is taken into consideration in the buying and allowance is made on thin lumber, Canadian lumber would then be as cheap, if not cheaper, than the American. This method of measuring would give Canadians fair competition.

In a good many localities, cypress sash are specified. It is a well-known fact, the world over, that there is no equal to Canadian pine grown in northern Ontario, for sash and door purposes. One of the largest manufacturers of doors in western Ontario has no hesitation in telling Canadian salesmen that he has not bought any Canadian lumber in years. Interior trim in most of the schools is specified Georgia or yellow pine. Why not use clear Norway, chestnut, or black ash, the product of Canadian mills?

What applies to schools, also applies in the majority of cases to hospitals, armouries, public libraries, post offices and churches.

A large quantity of lumber being used in the construction of the new Welland canal has been brought from the States. Now stop and consider what all this means to Canada. The sawmills of Canada are in themselves one of the largest employers of labor. Keep sawmills busy and you keep the wheels of commerce moving in many ways.

Bushmen are hard on wearing apparel and, as a matter of fact, they are also consumers of foodstuffs in large quantities. Horses have to be harnessed and fed. Machinery has to be bought for the mills, axes and tools for bush operations, etc.

As this country depends to a great extent upon the farming and bush operations for its prosperity, it will be readily agreed that if this is going to apply to the lumber industry, it means that lumber consumers should see that their requirements are as nearly as possible filled from Canadian mills.—Lumber Salesman.

A Good Word for the Wooden Shingle

The Engineering Record of New York City, one of the most widely read journals in the United States engineering field published an article a few weeks ago in which it referred to the wooden shingle as a dangerous building material. Since then, the Engineering Record has had reason to reconsider its views. In its issue of November 14th, under the head of "Fireproofing of Shingles" it publishes the following:—Comment was made some time ago on the fire danger from the use of wooden shingles, and it was suggested that building ordinances prevent the use of wooden shingles or require that they be fireproofed. It may not be generally known that a considerable amount of research in the fireproofing of shingles has been under way for some time, both in the United States Forest Products Laboratory at Madison, Wis., and independently by an expert retained by the educational bureau of the Paint Manufacturers' Association of the United States. While final conclusions have not yet been reached, Henry A. Gardner, who is conducting the latter work, emphasized in a paper read before a convention of painters this summer that the mere use of a good quality of linseed oil paint carrying suitable pigments cut down the fire hazard very considerably. Not only has the dried paint shown itself resistant to fire, but its effects are in themselves very important. First, the protection of a shingle from weather hinders it from warping and thus prevents the formation of pockets in which hot cinders may lodge. Furthermore, the irregularities of the surface which might retard burning particles are filled up by the paint. As to the actual retarding effect the results are very gratifying. It is very difficult to estimate quantitatively the degree of protection afforded, but untreated shingles, badly attacked by a 1-minute exposure to flame, are barely marred when painted. Under the 3-minute tests the unpainted shingle is severely burned, and while the painted specimen has been attacked the actual burning is limited to the area on which the flame was directed, the paint preventing the spread of fire and retarding the charring of the wood. Tests are under way, also, of various chemical retardants, a paint made with silicate of soda having given, thus far, very encouraging results. Research along these lines, needless to say, is well worth while, for there are good arguments in favor of the use of wooden shingles. Their protection, therefore, is a matter of no small economic importance."

Frame and Brick Dwellings as Insurance Risks

In connection with the campaign of subtsitute building material manufacturers against the use of lumber a very important discussion of lumber as a building material, from the fire insurance point of view is contained in a statement by a representative of a prominent United States fire insurance agency in Chicago. "In the question of desirability from a fire insurance standpoint," this statement says, "as to whether there is any real difference in loss ratio between a frame dwelling with a shingle roof and a brick dwelling with a gravel roof, if statistics could be obtained they would prove that there is no radical difference in the loss ratio of each to the premiums of this class. A brick dwelling after a fire contains salvage to the insurance companies in the walls, but because of the numerous window and door openings it is as serious in exposure to its neighbors as a frame dwelling. Naturally, a frame dwelling would have a higher loss ratio on account of the difference between frame and brick as far as salvage goes, but from an insurance standpoint it is immaterial which class of construction is used.

"Conflagrations are no respecters of construction. Total losses have occurred in reinforced concrete buildings occupied only for office purposes; as an illustration, the concrete office of the Emerson-Brantingham Company at Rockford, built and occupied for office purposes. Enough combustibility in the furniture, fixtures and stationery caused a total loss to construction. It would be as easy to have conflagrations start through a brick dwelling house district as it would through a frame dwelling house district. When sufficient heat has been engendered, plus the velocity of wind, fire will sweep through any form and character of construction, rendering same practically a total loss from every standpoint. The question of frame construction in the outlying parts of Chicago or Cook County, is, therefore, no more

serious a menace from a fire standpoint than if the same were constructed of brick, especially as the brick would be full of window and door openings and after all is but a frame construction with a brick covering.

"It is not possible to obtain statistics that show enough results on the dwelling house business. Ordinarily, a frame dwelling constructed these days is not expensive and the loss on same, if total, as compared with the premium charged for it, is a far less ratio of loss to the insurance companies than a four or six-storey double apartment building which proves, after a fire, to be a very heavy loss.

"It would seem to me as if, on account of the smaller values in the ordinary frame dwellings as compared with the increased values in brick dwellings and especially apartment buildings which must be classified as a dwelling house these days, that figures, if they could be obtained, would prove that a frame dwelling house business at the rates charged would show a higher rate of profit to the insurance companies than it will on the balance of the so-called preferred brick dwelling and apartment building classification."

Novelty Siding and Beaded Lumber Again Duty Free

In order to keep in touch with the customs regulations regarding lumber products entering the United States, one has to be continually on the watch. Recently, a decision was made by the United States Board of General Appraisers of Customs to the effect that novelty siding and beaded lumber were free of duty under clause 647 of the tariff act of 1913. In the November 15 issue of the Canada Lumberman we published a report that this finding had bee reversed by the Assistant Attorney-General of the United States on appeal, and that a duty of 15 per ceit. would have to be paid in future. A despatch from Washington now announces another change which puts this class of product back again on the free list. The Washington report says: The matter of the classification of novelty siding and beaded lumber under the present tariff law having been reconsidered by the Board of General Appraisers upon the request of the Government, the board has rendered another decision, reaffirming its former judgment, as follows:

"The merchandise which is the subject of these protests was returned by the appraiser as manufactures of wood and assessed with duty at the rate of 15 per cent. ad valorem under paragraph 176 of the tariff act of 1913. It is claimed to be free of duty under paragraph 647 of the same act.

"Considerable of the lumber involved is similar in all respects to the novelty siding that was the subject of G. A. 7546 (T. D. 34,305), which the board held to be entitled to free entry , and from that decision no appeal was taken by the Government. It follows then as to all such novelty siding as is involved here that the action of the collector must be reversed.

"The question as to the other lumber involved is practically the same as that which was raised in the novelty-siding case, except that the Government contends that this lumber, being beaded, is advanced beyond the condition of the novelty siding, and therefore should be held to be manufactures of lumber.

"The evidence establishes very clearly that the beading effect is produced by a planer and matcher, similar to that used in producing novelty siding, it being but a question of how many blades are used in the planer. In G. A. 7546, supra, we said:

"The witnesses, who appear to be men of extended experience in the milling and lumber trade, practically unite in saying that planed lumber, as known to the trade, embraces all forms of lumber that are made through the use of a planer or planer and matcher. Very clearly it would seem as though paragraph 176, supra, was not framed to include such lumber, for the very obvious reason that it has not lost its identity as lumber by being manufactured into an article with a distinct and new name. Te most that may be said here is that these boards are lumber manufactured, which is altogether different from being manufactures lumber. In United States v. Dudley (174 U. S., 670) it was held that boards and planks, planed on one side and tongued and grooved and adapted for flooring, ceiling, and sheathing, were, nevertheless, not manufactures of wood.'

"The claims for free entry of this beaded lumber must be sustained, and the action of the collector is reversed in each case."

The Robert Dollar Delivers Its Cargo

C. C. Yount, a West Virginian, who, after making a fortune in Bolivia, some years ago, embarked in the lumber business on Vancouver Island, B.C., recently visited New York to superintend the receiving of a cargo of Pacific Coast lumber, which reached that port on board the steamer "Robert Dollar." Before leaving New York for a trip to South America, Mr. Yount made some interesting and timely comments on the condition of business in the lumber trade on the Pacific Coast. He declared that business was so dull in British Columbia that he was going to Bolivia and Chile on a trip of inspection to "see what was doing down there."

"Business in British Columbia is pretty dead now," said Mr. Yount. "You can sell all the lumber you want, but it is impossible to get transportation. You cannot charter ships out there for any price. Almost everything in the way of bottoms is under the British flag and few of those are left on the Coast. The stock of lumber out there is short. All the lumbermen stopped cutting when they found there was no way to ship, as they did not want to tie up their money in products and pay interest on it. General business is tied up on account of the shutting down of the lumber industry. All railroad building has stopped. There is no distress, however, although strict laws prevent an exodus of laboring men over the American border."

The "Robert Dollar" is the American-owned ship under the British flag which applied for American registry some time ago at Rio Janeiro, her application resulting in complications which have been given some publicity. The "Robert Dollar," when she sailed from Vancouver, B.C., flew the British flag. When she arrived at Rio Janeiro Congress had passed the bill allowing registry to foreign-built vessels, irrespective of age. The owners of the "Robert Dollar," sought to change the flag of the vessel in Rio Janeiro. The permission was granted by the American consul, but the Brazilian Government officials, fearing possible difficulties with England, refused to clear the vessel except under the British flag. After considerable diplomatic correspondence, it was agreed to send the vessel out under the British flag, but that she would carry a provisional permit from the American consul for American registry. On her arrival at San Lucia, the change from the British to the American flag was effected.

The cargo which the "Robert Dollar" brought is declared to be the largest that has ever reached New York from Western Canada. It consisted of 5,500,000 feet of Douglas fir and will be followed by regular shipments through the Panama Canal by other steamers of the Dollar Line. All of this lumber, however, was not consigned to New York itself, as a large part of it is intended for use in improving the harbors of Montreal and Toronto, Canada. After unloading in Brooklyn that portion of her cargo which was intended for New York consignees, the "Robert Dollar" proceeded to New London, Conn., where she discharged the remainder of her cargo for shipment from there to its ultimate destination by railroad.

B. C.'s Forest Revenue for October

The total amount of forest revenue of the Forest Branch of the British Columbia Department of Lands for the month of October, 1914, was $179,299.01 made up as follows:—

Timber Licence Fees	$124,938.15
Timber Licence Transfer Fees	415.00
Timber Licence Penalty Fees	1,870.00
Timber Lease Rentals	5,167.69
Timber Lease Transfer Fees	15.00
Timber Mark Fees	22.00
Handloggers Licence Fees	225.00
Scaling Fees	3,989.84
Scaling Expenses	159.50
Tmber Royalty	34,434.34
Timber Tax	4,043.19
Trespass and Penalties	205.00
Timber Bonus	3,439.71
Exchange	3.58
Miscellaneous Revenue	75.94
Timber Sales Rentals	152.34
Timber Sales Cruising	110.00
Timber Sales Advertising	24.00
Interest on Leases	8.73
Total	$179,299.01
Collections for the forest protection fund from timber licencees, lessees, etc. $10,639.61	
Contributed by Provincial Government 10,639.61	$21,279.22

Forest protection expenditure during the month of October was $82,478.23.

The total amount of timber scaled in all districts was:49,838,526 feet b.m. of saw logs, 305,904 lineal feet of poles and piles, and 18,262.05 cords of railway ties, shingle bolts and cordwood.

The quantity exported from all districts was as follows: 8,894,084 feet b.m. of saw logs, and 36.055 lineal feet of poles and piles.

Timber sales completed during the month of October amounted to 5,731,000 feet b.m., the total estimated value being $12,319.34.

A decided improvement in the total volume of Canadian trade was shown by the comparative statement of exports and imports for the month of October. The increase for October was almost equal to the total decrease shown in the figures for the seven months of the fiscal year. The October trade amounted in value to $139,537,008, an increase of $24,974,093. For the seven months the total value of the trade was $640,171,607, a decrease of $25,993,741. Exports of forest products during October showed an increase of $430,648 for the seven months. For the month of October the exports of forest products showed a decrease of $170,377.

Poles Consumed in Canada During 1913

A report upon the consumption of poles in Canada during 1913 has been issued in bulletin form by the Forestry Branch of the Department of the Interior. Reports received from 424 pole purchasers were used as a basis for the statistics in this bulletin. These pole purchasers consisted of 218 telephone companies, 155 electric light and power concerns, 29 electric railways, 18 steam steam railways and 4 telegraph companies.

The statistics have been divided into two main groups: first, those received from steam-railway, telegraph and telephone companies, and second, those received from electric railway, power and light concerns.

The accompanying table gives the details of the poles purchased in Canada in 1913 by kinds of wood divided into these two main classes.

Poles Purchased, 1912 and 1913, by Kinds of Wood and Chief Uses—Number, Total Value, Average Value and Per Cent. Distribution

TOTAL OF ALL USES

Kind of Wood	1912 Number	1912 Value	1912 Av. Value	1912 Per cent.	1913 Number	1913 Value	1913 Av. Value	1913 Per cent.
		$	$ ct.			$	$ ct.	
Total	**608,556**	**1,133,524**	**1 83**	**100.0**	**534,592**	**1,188,331**	**2 22**	**100.0**
White Cedar	378,369	613,580	2 83	62.2	264,267	525,853	1 99	49.4
Red Cedar	144,222	408,472	2 83	2.37	145,569	488,138	3 35	27.2
Tamarack	36,158	46,822	1 29	5.9	115,517	155,682	1 35	21.6
Spruce	9,127	10,334	1 13	1.5	5,228	6,046	1 16	1.0
Jack Pine	1,790	2,710	1 51	0.3	1,450	1,299	0 90	0.3
Balsam Fir	38,000	30,400	0 80	6.2	1,437	1,841	1 28	0.3
White Pine	.....	.....	....	.....	682	8,095	11 37	0.1
Chestnut	228	147	0 64	*	167	94	0 56	*
Cypress	.....	.....	....	.....	128	1,056	8 25	*
Hemlock	50	65	1 30	*	92	32	0 35	*
Western Larch	.....	.....	....	.....	39	163	4 18	*
Ash	.....	.....	....	.....	16	32	2 00	*
Douglas Fir	612	994	1 62	0.1	.....	.....	....	.....

STEAM RAILWAYS AND TELEPHONE AND TELEGRAPH COMPANIES

Total	**549,560**	**830,793**	**1 51**	**100.0**	**469,521**	**833,259**	**1 77**	**100.0**
White Cedar	341,240	462,964	1 36	62.1	230,360	382,657	1 66	49.1
Red Cedar	122,925	278,846	2 27	22.4	115,714	282,389	2 44	24.6
Tamarack	36,158	46,822	1 29	6.6	115,212	152,675	1 33	24.5
Spruce	8,567	7,869	0 92	1.6	4,393	4,150	0 94	0.9
Jack Pine	1,790	2,710	1 51	0.3	1,450	1,299	0 90	0.3
Balsam Fir	38,000	30,400	0 80	6.9	1,437	1,841	1 28	0.3
White Pine	.....	.....	....	.....	682	8,095	11 87	0.1
Chestnut	228	147	0 64	*	167	94	0 56	*
Hemlock	40	40	1 00	*	90	27	0 30	*
Ash	.....	.....	....	.....	16	32	2 00	*
Douglas Fir	612	995	1 63	*	.....	.....	....	.....

ELECTRIC RAILWAY, POWER AND LIGHT COMPANIES

Total	**58,996**	**282,731**	**4 79**	**100.0**	**65,071**	**355,072**	**5 45**	**100.0**
White Cedar	37,129	150,615	4 06	62.9	33,907	143,196	4 22	52.1
Red Cedar	21,297	129,626	6 09	36.1	29,855	205,749	6 89	45.9
Spruce	560	2,465	4 40	0.9	835	1,896	2 27	1.3
Tamarack	.....	.....	....	.....	305	3,007	9 89	0.5
Cypress	.....	.....	....	.....	128	1,056	8 25	0.2
Western Larch	.....	.....	....	.....	39	163	4 18	*
Hemlock	10	25	2 50	*	2	5	2 50	*

*Less than one-tenth of one per cent.

The consumption of wooden poles in Canada varies greatly from year to year. There was a decrease of about 30 per cent. in the numbers purchased from 1910 to 1911, an increase of 3.9 per cent. from 1911 to 1912, and a decrease of 12.2 per cent. from 1912 to 1913.

Eastern white cedar (Thuja occidentalis) still heads the list, as it always has done in the past. The supply of good eastern white cedar poles, however, is visibly decreasing, as is demonstrated by the fact that at least 20 per cent. of the poles purchased in 1913 were imported from the United States. The western species of red cedar (Thuja plicata) is more abundant and is now taking the place of the eastern species, especially in the greater length-classes. Poles of this wood are used extensively in the western provinces and more particularly in British Columbia, where this tree grows. In the Prairie provinces the poles are about half of the eastern species and half of the western. Of the red cedar poles purchased in 1913, over 8 per cent. were imported from the Pacific States, and were classed as "Idaho red cedar," although these are of the same species as those obtained from British Columbia.

Out of a total of 534,592 poles, 12.1 per cent. were reported as having been imported from the United States in 1913.

While the total number was a decrease from 1912 to 1913, the total value showed an increase of 6.7 per cent., caused by an increase in the average price amounting to $0.39.

Telephone and telegraph companies and railway companies operating telephone and telegraph lines used 87.8 per cent. of all the poles purchased in Canada in 1913. This is a decrease in numbers of 14.6 per cent., and an increase in value of 0.3 per cent., the average value to these companies increasing by $0.26.

All the jack pine, balsam fir, white pine, chestnut and ash poles were purchased by companies of this class.

The electric railway, power and light companies' purchases formed only 12.2 per cent. of the total, but these poles cost on an average $3.68 more than those purchased by the telephone and telegraph companies.

The total number was an increase of 10.3 per cent. over 1912; while the average price was an increase of $0.66. These companies imported over 5 per cent. of the poles they used in 1913. They purchased all the cypress poles imported into Canada during that year and also all the western larch poles from British Columbia.

The average prices given for certain kinds of poles which have been purchased in small quantities cannot be considered as indicative of the intrinsic value of that particular wood for pole purposes, or even as a fair gauge of its market value, as these individual prices are affected by so many outside conditions, such as cost of transportation, size, etc.

The greater part of the poles purchased in 1913 were less than 25 feet in length, and of this class the two cedar species and eastern tamarack together formed over 97 per cent. All the chestnut and ash poles were of this length, and the eastern tamarack poles were more numerous in this class than those of western red cedar, which is only true for this length-class.

In the 26-to-30-foot class the two cedars formed together 98.9 per cent., and tamarack poles became of little relative importance. While the cedar species still formed by far the greater part of the poles in the 31-to-35-foot class, poles of spruce became more important, and cypress poles appeared for the first time. White pine and western larch poles appeared in the 36-to-40-foot class, and here red cedar became more important than white, which is not the case with the shorter classes of poles. In the class of poles over 40 feet in length, red cedar formed over two-thirds of the total.

Quebec Issues Interesting Forest Figures

In the first volume of a Statistical Year Book, just issued by the Quebec Government, much information is given regarding the forests of the province and the pulp and paper industries. The pre-eminence of Quebec province in this regard is shown in a statement showing that, while the province has 130 million acres of forest area capable of yielding merchantable timber in the form of saw-logs, pulpwood, etc., Ontario has only 70 million acres, New Brunswick 9, and Nova Scotia 5. British Columbia comes second to Quebec with 100 million acres, and the three prairie provinces combined with another 100 million, making a total of 414 millions. Quebec province now produces about 30 per cent. of the total forest products of the Dominion, and 22,000 men are employed every winter in the forests of the province cutting timber.

How greatly the embargo on the export of pulpwood from Crown lands affects the province may be gathered from a table showing that private forests in the province make a total of only 6,000,000 acres. The forests not yet mapped out into timber limits cover an area of 78,000,000, and of these the Year Book says: "These forests lie in the basin of the St. Lawrence as well as that of Hudson Bay. No cutting has ever been done on those vast territories, but fire, storms, insects and fungi cause great damage every year. Moreover, the growth in volume of the trees is very slow, as in all virgin forests. To the Forest Service has been assigned the duty of making an inventory of them, so that they may gradually be utilized as the country's needs require. The timber in these forests consists chiefly of spruce, balsam fir, poplar and banksian pine; the quantity per acre varies between 5 and 9 cords. This region can furnish millions of cords of pulpwood, and, as there are considerable water powers, it can easily be foreseen that before long many pulp and paper mills will be erected in it." From the above, it will be seen that opportunities in the pulp and paper line in the province have not all been snapped up.

A table regarding the income to the province from its forests shows that the amount collected by the Provincial Government for stumpage, ground rent, fees on transfers, penalties and fire-tax, from the year 1867 to 1913 made a total of $35,528,930. Last year the amount was $1,510,171. The penalties inflicted for illegal cutting during the past four years amounted to $200,000. The pulp mills of the province are now turning out over 60 per cent. of the pulp manufactured in the Dominion.

The B. C. government has decided to make a concession to loggers in acknowledgement of their protest against the export tax on logs. Some weeks ago it was announced that to relieve the situation in the province, where there were about 250,000,000 feet of logs on hand, the embargo on the export of logs would be lifted. It was pointed out, however, that the benefit of this order was nullified by the tax which was levied. The export tax has now been removed from fir logs, inclusive of the royalty of fifty cents per thousand. The levy was $1 per thousand. On Nos. 1 and 2 cedar logs no change is made,

Commercial Travellers' New President

Mr. J. G. Cane, Toronto.

The Commercial Travellers' Association of Canada at its recent annual meeting conferred the honor of the election of president on one of its oldest members, Mr. J. G. Cane, who is also one of the best known lumbermen in Canada, being the head of the wholesale lumber firm of J. G. Cane & Company, McKinnon Building, Toronto. Mr. Cane has been engaged in the lumber business throughout his whole business life. He was born in 1864, near the village of Weston, where his father operated a saw mill. He was educated at the public and high schools at Weston and started, at an early age, to work for his father. After learning a good deal about the manufacturing business in this way, he went into the planing mill business and secured a good insight into it for a number of years in the city of Toronto. Next he widened his experience by going into the wholesale lumber business as a travelling salesman for the Hargreaves Lumber Company of Toronto. Later he occupied a similar position with the firm of McCool, Boyle & Wilson, of Toronto. His next position was with the old Toronto Wood & Shingle Company, after which he felt sufficiently in touch with the lumber business to make a venture on his own account. In 1894 he started in business for himself under the name of J. G. Cane & Co.

Mr. Cane has now been a commercial traveller, in the lumber business, for about 28 years. His connection with the Commercial Travellers' Association has been a long and honorable one. He held office in the Association for about nine or ten years as a director. Then he was elected second vice-president and subsequently first vice-president, which has now been followed by his selection for the position of president. In addition to his business interests and his connection with the Commercial Travellers' Association, Mr. Cane is a member of several fraternal associations.

As indicated above, Mr. Cane inherited his aptitude for the lumber business. His father, Mr. Martin Cane, started in the lumber business as manager of mills for Edward Scarlett, of Weston, whose mill he subsequently purchased and operated for a number of years.

American Money in Canadian Mills

American capital is invested in fifteen British Columbia shingle mills and six British Columbia saw mills. The fifteen shingle mills have a total of eighty-four machines, which on the customary rating gives a capacity of 2,530,000 shingles in ten hours. The saw mills in which American capital is interested have a combined ten-hour cut of 509,000 feet of lumber. The shingle mills controlled or partially controlled by Americans include the following plants and equipment.

Company	Location	Machines
Campbell River Lbr. Co.	Whiterock	3
Canadian-Puget Sound Lbr. Co.	Victoria	3
Colebrook Mill Co.	Whiterock	3
Cottonwood Lbr. Co.	De Roche	4
H. D. Blackford	Vancouver	6
Hadden Shingle Co.	Cloverdale	3
Lulu Shingle Co.	Eburne	5
McMartin & McMillan	Ladner	2
L. W. Parr	Vancouver	2
Surrey Shingle Co.	Cloverdale	5
Stoltze Shingle Co.	Ruskin	8
Thurston-Flavelle Lbr. Co.	Port Moody	4
Shields Shingle Co.	Chilliwack	6
Westminster Mill Co.	N. Westminster	14
Vancouver Lbr. Co.	Vancouver	16

The six saw mills in the province of British Columbia, owned wholly or in part by Americans are:

	10-Hour Capacity
Cameron Lumber Company, Victoria	65,000 ft.
Campbell River Lumber Co., Campbell River	40,000 ft.
Genoa Bay Lumber Co., Genoa Bay	40,000 ft.
Small & Bucklin Lumber Co., N. Westminster	61,000 ft.
Vancouver Lumber Co., Vancouver	133,000 ft.
Victoria Lbr. & Mfg. Co., Chemainus	170,000 ft.

Louison Lumber Company's New Mill

The accompanying illustration shows the new mill of the Louison Lumber Company at Jacquet River, N.B. Readers of the Canada Lumberman will recall that the plant operated by this company was

Louison Lumber Company's New Plant—Jacquet River, N. B.

destroyed by fire on July 8th of the present year. The company immediately commenced work upon the construction of the new mill and commenced sawing on September 25th, since which date they have not lost a day's operation.

The equipment in the new mill consists of an 8-ft. right hand, single cutting log band mill, a 6-ft. Berlin H. 6 horizontal resaw, with the necessary edger, slasher, trimmer and lath machine, also two shingle machines and space provided for a third. The machinery is all new, and the mill is modern in every respect, having a capacity of from 70,000 to 80,000 feet in ten hours.

The old mill which was destroyed by fire contained a twin slabber, 48-in. Wickes stock gate, circular, 2 edgers and a full equipment of lath machines, slashers, trimmers, etc. The former plant was covered by $40,000 insurance, which partly covered the loss.

How Clothes Pins Are Produced

In the Canada Lumberman of November 1, a reply was published to a question asked by Clarke Bros., Bear River, N.S., regarding the manufacture of clothes pins. The following additional information has been received from the United States Forest Service: "Clothes pins are made from several species of wood but beech is used to a greater extent than any other. Elm, oak, yellow pine, cedar, locust and white or paper birch are also used. The raw material is procured at a clothes pin factory in the form of logs. The logs are sawed into bolts about 16 in. long; the bolts are sawed into boards ¾ in. thick by an ordinary shingle saw; the boards are converted into ¾-in. squares by a gang saw and then cut into 5-in. lengths. These pieces ¾-in. square by 5 in. long are then turned into clothes pins by automatic lathes. The slot is next cut by a peculiar arrangement of knives inserted into a circular saw which gives the slot the proper flange. The clothes pins are then polished by a friction process. This is accomplished by putting the clothes pins in cylinders or drums which revolve, each cylinder holding about 40 bushels of clothes pins, and the rubbing of the clothes pins against each other makes them as smooth as if polished with the finest sand paper. A few minutes before the polishing process is complete, a small amount of tallow is thrown into the cylinders which gives them a gloss."

How Many Shingles from a Cord of Cedar?

Editor Canada Lumberman: Can you let me know how many shingles can be made from one cord of 4-ft. medium-sized cedar?—Chas. Goulah.

A prominent New Brunswick shingle manufacturer, replying to an enquiry regarding this point writes as follows: "Our shingle mill foreman tells us that in the early days of shingle making here when they bought cedar from the farmers, it was bought either in lengths of 4 ft. 2 in., or 4 ft. 4 in., so that it would make either three or six bolts of 16 in. long, the strong measurement being required for saw cuts. Two and one-half cords of 140 cubic feet of stock, 4 ft. 2 in., was considered equal to 1,000 superficial feet, which sawed out 10,000 shingles in four grades.

"At the present time the measurement on cedar that we get only gives us 8,000 shingles per thousand feet, in six grades, which is what is made at the present day, while prior to thirty years ago they only made four grades."

Apple wood, used almost exclusively for saw handles, also furnishes the material for many so-called briar-wod pipes and particularly for the large wooden type used in printing signs and posters.

Consumption of Cross Ties in Canada During 1913

A bulletin upon the consumption of cross ties in Canada during 1913 has been issued by the Forestry Branch of the Department of the Interior. The bulletin is based on reports received from 47 steam railways and 32 electric railways purchasing ties in 1913. The total number of ties purchased was 19,881,714, valued at $8,740,849, and of this total, 3,254,587 ties, valued at $1,827,358, were reported as having been purchased in the United States. This brings out the fact that Canadian railway companies import 16.4 per cent. of their tie material and pay on an average 13 cents a tie more for this than for the native article.

The accompanying table gives the details of the ties purchased in Canada in 1912 and 1913, by kinds of wood.

Cross-Ties Purchased, 1912 and 1913, by Kinds of Wood—Number, Value, Average Value and Per Cent. Distribution

Kind of Wood	1912 Number	1912 Value $	1912 Av. Value $ ct.	1912 Per cent.	1913 Number	1913 Value $	1913 Av. Value $ ct.	1913 Per cent
Total	21,308,571	9,373,869	0 44	100.0	19,881,714	8,740,849	0 43	100.0
Jack Pine	7,783,034	3,417,238	0 44	36.5	7,773,674	3,103,140	0 40	39.1
White Cedar	3,332,105	1,486,456	0 45	15.6	2,451,527	1,090,436	0 44	12.3
Douglas Fir	2,183,554	661,891	0 30	10.2	2,427,100	801,710	0 33	12.2
Western Larch	1,196,184	514,359	0 43	5.6	1,225,956	636,631	0 52	6.2
Hemlock	1,947,474	743,535	0 38	9.1	1,199,699	455,662	0 38	6.0
Hard Pine	658,096	434,840	0 66	3.1	1,138,351	621,032	0 55	5.7
Oak	933,486	624,174	0 67	4.4	978,554	673,244	0 69	4.9
Tamarack	1,803,696	806,049	0 45	8.5	866,231	369,666	0 43	4.4
Western Hemlock	.....	.....	....	.....	479,113	148,725	0 31	2 4
Spruce	835,121	330,854	0 40	3.9	458,256	151,049	0 33	2.3
Western Spruce	8,000	4,640	0 58	*	267,917	70,685	0 54	1.3
Chestnut	266,082	157,225	0 59	1.2	232,179	126,795	0 55	1.2
Red Cedar	82,357	29,109	0 35	0.4	115,578	77,328	0 67	0.6
Red Pine	26,646	12,673	0 48	0.1	114,852	52,112	0 45	0.6
Beech	103,583	70,220	0.68	0.5	96,923	60,552	0 62	0.5
Birch	37,943	22,605	0 60	0.2	24,736	10,447	0 42	0.1
Maple	51,465	39,681	0 77	0.2	16,860	14,381	0 85	0.1
Elm	2,868	1,361	0 47	*	13,674	6,421	0 47	0.1
Ash	.....	.....	....	.....	503	216	0 43	*
Cherry	.....	.....	....	.....	31	17	0 55	*
White Pine	44,408	15,348	0 35	0.2	.....	.....	....	.....
Balsam Fir	12,169	1,621	0 13	0.1	.....	.....	....	.....

*Less than one-tenth of one per cent.

The decrease in the number of ties purchased in 1913 was 6.7 per cent. of the total for 1912. Out of twenty kinds of wood reported, the two most important—jack pine and white cedar—were reported in smaller quantities than in 1912, as were seven of the other kinds of wood.

The use of Douglas fir increased, and ties of that wood formed 12.2 per cent. of the total as compared to 10.2 per cent. in 1912. The use of this wood has steadily increased since 1908. Four other British Columbia species, namely Western larch, spruce, hemlock and red cedar, all showed increases from 1912 to 1913. The eastern species of these woods all showed decreases during the same year. Oak ties, of which the greater part are imported, were purchased in increased numbers, but all the other hardwoods, with the exception of elm, showed decreases.

The average price of ties of all classes was practically the same in 1913 as in the preceding year. The two most important woods were purchased at a slightly lower price than in 1912, and of the others, five showed increases and eight decreases.

A total of 19,490,491 ties, or 98.0 per cent. of all those purchased in Canada, were used by the steam railways. This total is a decrease of 6.4 per cent. from the total for 1912.

The ties imported for use by this class of companies amounted to 3,235,022, valued at $1,813,256, and formed 16.6 per cent. of the total.

Oak ties were the most expensive on the list among the more important woods and were used for switch ties and on lines where the traffic was exceptionally heavy. By far the greatest number of the oak ties were imported (96.8 per cent. coming from the United States) and were made up of a large number of commercial species. The fact that it pays to apply preservative treatment to a hard, strong, and even durable wood like oak, is demonstrated by the fact that the steam railways in Canada in 1913 purchased 525,623 treated oak ties, this number forming over half (54.3 per cent.) of the total.

Hard pine from the Southern Atlantic and Gulf States forms an increasing proportion of the tie material imported into Canada each year. This wood does not grow in Canada, and is the product of at least four different species of pine, the most valuable of which is longleaf pine (Pinus palustris). The wood of the hard pines, when used for ties, usually decays before it fails through mechanical wear, and therefore it repays the cost of a preservative treatment that will postpone this decay. Of the hard pine ties used in Canada by the steam railways in 1913, 17.5 per cent. were treated.

Altogether about 12 per cent. of the ties purchased by the steam railways in 1913 received some sort of treatment to prevent decay.

While the electric railways in Canada in 1913 purchased only two per cent. of the ties, they paid the highest average price for their material.

The total for 1913 was a decrease of 19.1 per cent. from 1912. The two cedar species in this class formed together three-fifths of the total, and jack pine, which was the most important wood used by the steam railways, was of only secondary importance. As a general rule the more durable native woods were purchased by these companies and the treated ties formed less than one per cent. of the total. Oak and cedar ties were imported in the largest quantities, together with all the hard pine, beech and maple. Of the oak ties reported 9.3 per cent. were treated, as were all the imported beech and maple ties.

The only western species reported were red cedar, Douglas fir and western larch. These companies paid, on an average, 16 cents a tie more than the steam railways. This price was an increase of 8 cents over that of 1912, increasing with the cedars and with oak. All the other woods showed decreases in average cost.

In Canada in 1913 about 10.0 per cent. of the cross-ties purchased by both classes of railways were given a preservative treatment to retard decay. The practice is a fairly recent one, as is seen by the fact that in 1910 practically no ties were treated at all, and that the percentage of treated material has increased steadily since that time. The treatment, under present market conditions, is most profitable when applied to the harder, stronger woods that if used untreated would decay before the end of their mechanical life.

Estimating British Columbia's Timber Resources

One of the forestry projects upon which the Commission of Conservation is engaged is a survey of the forest resources of British Columbia. This work was started last year and it is hoped that a fairly definite idea of the forest resources of the province will have been secured by the end of next year. For this work, the Commission has secured the services of Dr. H. N. Whitford, formerly of the Philippine Forest Service, and of R. D. Craig, for some years with the Dominion Forestry Branch, and later engaged in private forestry work in British Columbia. The plan of work is to collect, check and compile all available information. A large percentage of the accessible merchantable timber of the province is held under timber limits, and for most of these limits, one or more cruises have been made. The limit holders are co-operating generously with the Commission by furnishing information relative to the amount of timber on the individual limits. In addition a large amount of detailed information has been secured through forest surveys conducted by the Provincial Forest Branch, and by the Forestry Branch of the Canadian Pacific Railway. All this information is being used by Messrs. Whitford and Craig, and is supplemented by information collected at first hand, as well as by data secured from timber cruisers, surveyors, explorers and others. Previous estimates indicate that there is something like three hundred billion feet of saw timber in British Columbia, which is supposed to be approximately one-half the amount of merchantable standing timber in Canada. This is only one-fourth to one-fifth as much as the estimated forest resources of the United States. In addition to the amount of saw timber, there is a vast quantity of pulp wood of which no reliable estimates have been made. Fires have uselessly destroyed many times the amount of timber now left standing in Canada.

The Fire Protection Work of the Dominion Railway Commission has now been organized for nearly three years, and has shown excellent results. From being the greatest single source of fire damage, the railways now give promise of dropping well down in the list of minor agencies. They have also accomplished a great deal in the way of reporting and extinguishing fires not due to railway causes. The Board's order gives the Chief Fire Inspector very wide discretionary authority in determining what specific measures are necessary for the proper prevention and control of fires along railway lines. This is particularly the case with regard to special fire patrols in forest sections and the construction of fire guards in the prairies. The order also requires the use of efficient fire protective appliances on locomotives, prohibits the use of lignite coal, requires the issuance of instructions covering the reporting and extinguishing of fires by railway employees, and gives the Fire Inspection Department power to regulate the burning of inflammable debris along the right of way. The Railway Act requires railway companies to maintain their rights of way free from dead or dry grass, weeds and other unnecessary combustible matter. In carrying out the above requirements, the Fire Inspection Department of the Board co-oeprates closely with the fire protective organizations of the Dominion and provincial governments. Under the plan of co-operation now in effect, more than seventy officials of these fire protective organizations have been appointed officers of the Fire Inspection Department of the Board, for the purpose of maintaining a constant supervision over the work of the railway companies, to insure that the necessary measures shall be taken for the prevention and control of railway fires. Practically all the railways have shown great improvement in fire protection work. The Canadian Pacific and Canadian Northern Railways have organized especially for the handling of fire protection work, as a partial result of the Board's requirements.—American Forestry.

Hastings Mills, Vancouver, 1914.

Growth of the Lumber Industry in B.C.

Outline of Development Which Has Been Coincident with Industrial Expansion of Pacific Coast Province

By R. H. Alexander

The development of the lumber industry is almost synonymous with the development of the province itself, in which, without doubt, it has contributed in a most important degree.

The earliest, and probably the first, instance of export of forest products from British Columbia is of a much earlier date than generally referred to, as it took place just one hundred and twenty-six years ago. It is mentioned in "Vancouver's Discovery of Puget Sound," by Professor Meany, of the University of Washington, a book replete with interest to all desirous of knowledge of the early history of British Columbia.

John Meares, a retired lieutenant of the British Navy, made a voyage from China to the Coast in 1786, and returned with a valuable cargo of furs. The next year a company of English merchants in India fitted out two ships for a similar cruise, giving him command of the expedition in a ship of 230 tons, called the "Felicia Adventurer." He arrived at Nootka on the west coast of Vancouver Island, May 13, 1788, and bought a small tract of land from the Indian chief, Maquinner, at what they called Friendly Cove, and which still bears the same name, erected a trading post and commenced building a sloop to be used in the fur trade on the Coast, and, curiously, this was the first introduction of Chinese labor on the Pacific Coast, as he had brought with him a number of Chinese carpenters to build his vessel. While it was being built he traded for furs, and in September, 1788, he left for China with a cargo of furs and took on a deck-load of spars, intended for the China market. The trade with China commenced so many years ago in a vessel of 230 tons, is now being prosecuted by steamers of 6,000 tons gross measure and over, taking a cargo of between 3,000,000 and 4,000,000 feet.

The Pioneer Sawmills of the Province

It is also interesting to note that the first export sawmill in British Columbia was located about 75 years afterward not so very far from the scene of this first shipment, being at Alberni, on the West Coast. The first sawmills in the province were at Esquimalt and Snooke, on Vancouver Island, and were only for the requirements of the early settlers. The first sawmill of any size for the prosecution of the export business was established at Alberni about 1861 or 1862, but the business did not prove successful, and was in operation but a few years, when it was closed and the machinery sold to one of the mills on Puget Sound. History, however, repeats itself, and Alberni is again resounding to the hum of the sawmill, three having lately been built.

There was a small sawmill at New Westminster in 1862, catering to the local trade, from which I think one cargo was sent abroad. Parties who had been connected with this enterprise started the first mill on Burrard Inlet a year or two afterward, at Moodyville, which was followed by the building of the Hastings Mill on its present site in 1865, and with the erection of these mills, the export trade of the province may be said to have commenced. Still later the mill at Chemainus came into operation, and for many years the whole export trade was done by these three. But several later erected mills have, within the last few years, joined the ranks of export shippers, and the quantity so disposed of has risen from twenty-five million to ninety million feet, and the prospect is that owing to the quicker route to be afforded by the Panama Canal this branch of the trade will increase to an extent that can hardly be foreseen at the present time.

With the expansion of the export trade it is interesting to note the increase there has been in the size of the vessels. In the early days of the trade a vessel carrying over 400,000 feet was a large one, and to be called upon to supply a cargo of one million feet would have staggered the manager of any of the mills, while now it is a difficult matter to obtain a vessel carrying less than one million feet, and steamers carrying between three million and four million feet are quite common visitors.

Growth of Rail Shipments

In the foregoing remarks the sea-borne export business only has been referred to, but it is insignificant in quantity when compared with what is now shipped by rail and consumed beyond the confines of British Columbia, which is about ten times as great as the export by sea. The advent of the Canadian Pacific Railway opened up a market for our lumber to the East, and from that time the mills rapidly increased in number. It was a considerable time before our Douglas fir established itself, but it crept further and further East, until now we have customers on the Atlantic seaboard both in Can-

Hastings Sawmill, Vancouver, 1889.

Logging in City of Vancouver, 1889.

ada and the United States, and the quantity shipped is ever on the increase.

In 1886, when the Canadian Pacific reached Vancouver, the output of the sawmills in the province did not exceed 100 million feet, and in 1912 it had increased to 1,262 million feet. In the same years the revenue derived by the province from the lumber industry was respectively $3,768 and $2,600,000. So that while the output has increased about twelve times the revenue has increased seven hundred fold. The early completion of the Grand Trunk Pacific, Canadian Northern and Kettle Valley railway lines will further increase the shipments in supplying the needs of new settlers.

While the manufacture of the raw material from the log into the finished lumber has advanced from the small water mill, with one upright saw and the shingle-weaver with his frow and draw-knife, to lumber and shingle mills fitted with all the most modern appliances in the way of machinery, requiring enormous quantities of the raw material for each day's operation, the methods of winning that raw material from the forest have also undergone great change and improvement.

When the "Bull Puncher" was Boss

In the earliest days the logs were put into the water by individual hand-loggers, and the camps used oxen for their motive power. The hand logger selected a locality where a well-timbered side hill sloped towards the water; his outfit in the way of logging appliances was comprised of an axe and a cross-cut saw, some wedges, and last but most important was his jack screw. After the tree was felled, he barked the upper side, laid a few skids, and with the aid of his jack screw rolled the log over the skids, when its own weight sent it rushing down the hill into the water.

The camps built skid-roads from the beach and used ox teams to haul the logs over them. The lowest paid man in a camp was he who walked ahead of the team with a bucket of grease and a swab, with which he greased each skid to reduce the friction, and the highest was the teamster, or "bull puncher," as he was called. A good teamster was an artist in manoeuvring a team of six or seven yoke of oxen in the thick woods. He was generally, also, an artist in the use of strong language, with which, and a liberal use of a goad, he stimulated the "bulls" to exert themselves.

As the roads increased in length, teams of horses and mules were substituted on the main roads for oxen, which have in turn been superseded by the use of steam haulers, and even these, in some cases have given place to the use of what the logger calls a "flying machine"—a system of wire cables from which the log is partially suspended whilst in transit to the railway which transports it to the water. The main roads at the large camps are standard gauge roads, equipped with powerful locomotives and suitable cars.

What the Lumberman Creates

A little consideration on the part of readers will bring home to them the importance of this great industry. It furnishes the greater portion of the revenue, and makes possible the development of the province, without the general public being heavily taxed. The number of operatives in the mills is only a small proportion of those dependent on the industry, for to these must be added the great army of men in the woods, the crews of the steamers engaged in towing the logs to the mills, the stevedore's crews engaged in loading the vessels, mechanics in foundries and machine shops, clerks and salesmen in stores, the producers of fruit, vegetables and other farm produce, and the host of others who cater to the various requirements of the industry or those engaged in it. Lastly, it will take an acre of ground, producing 20 bushels of wheat each year, 75 years to furnish the railways an equal weight for transportation that one acre of good timberland in British Columbia supplies.

Nature has with many other blessings endowed the province of British Columbia with an asset in its forests, the future value of which at the present time is absolutely incalculable, and it behooves the citizens and the government to unceasingly foster and judiciously protect the industry to the fullest possible extent

Increased B.C. Exports to the U.S.

A recent issue of the United States Daily Consular & Trade Reports contains a report from the United States Consul at Vancouver, B.C., in which it is stated that the declared exports to the United States from the Vancouver Consular district for the three quarters ending September 30th, 1914, amounted in value to $10,454,091, as compared with $6,139,745 during the corresponding period of 1913.

The greatest increase in exports to the United States is shown in timber products, with a total of $4,021,635 for the first three quarters of 1914, as compared with $1,325,023 for the corresponding period last year, a gain of $2,696,612, or more than double the declared value for the January-September portion of 1913. Of the various wood products included in the exports, shingles show the greatest advance, the total value for the three quarters of 1913 being $252,803 and for the like period of the present year, $1,742,128, an increase of $1,489,325. Of the wood products paper also shows a heavy increase, advancing from $517,451 to $1,170,896, and lumber exports rose from $59,978 to $386,480.

The rapid growth of the exports of wood products from British Columbia to the United States during the present year is due to several causes, among which are the Government tax on timber exports from the Province, which practically prohibits the exportation of logs, the lower value of timber in British Columbia, because of the large areas of virgin forests in the Province, and the absolute prohibition of the exportation of cedar in an unmanufactured state, which necessitates the manufacture within the Province of all cedar shingles intended for export. The removal of the duty on shingles and certain grades of lumber imported into the United States has enabled the British Columbia manufacturers to compete more successfully with the mills in the Pacific Coast States, and has been a factor in increasing the export trade in this class of products.

Canadian Shingles Increase in U.S.

For the first eight months of this year, under free trade, importations of Canadian made shingles into the United States, totalled 765,627,000 pcs., as compared with 288,047,000 pcs., for the corresponding eight months of 1913, when shingles were protected by a 50-cent tariff.

The value of Canadian shingles imported into the United States for the first eight months of this year was $1,776,930, as compared with $743,030 for the first eight months of 1913.

Of the 765,627,000 Canadian shingles imported this year 201,842,000 wer shipped in through the Puget Sound gateway, as compared with 30,706,000 for the first nine months of last year, under the protective tariff.

The detailed statistics of Canadian shingle importations, during the first eight months of 1913 and 1914, follow:

	1913		1914	
	M. Shingles	Value	M. Shingles	Value
January	27,284	$ 67,097	42,706	$ 99,845
February	19,621	51,157	57,700	134,000
March	24,536	60,732	81,771	195,987
April	42,568	108,066	114,763	260,084
May	39,747	99,577	116,595	267,739
June	42,865	115,441	116,761	270,014
July	41,364	106,440	114,222	270.555
August	50,062	134,520	121,109	274,706
	288,047	$743,030	765,627	$1,776,930

1913 importations absorbed a 50c per M. duty.

1914 importations are free of duty. Under a 50c. duty this volume of shingles would have yielded a revenue of $382,813.50.

British Columbia's Lumber Industry

Among the displays at the British Columbia Exhibition held in Vancouver recently was one of the timber resources, which gave a comprehensive idea of the importance of the wood products, the large proportion of the manufacturing life of the province which they represent, and what a large number and variety of articles may be produced from the forests. The exhibit covered the timber industry from the logging camp to the mills and allied industries. The revenue from the forestry branch is equal to $6.63 per capita of the population. The total government revenue from the forests of British Columbia during the past nine years has been sufficient to pay for all the roads, bridges, and wharves constructed, and has been the most important factor in the commercial and industrial development of the province.

The annual cut of British Columbia timber is approximately 2,000,000,000 feet. There are 420 mills and 790 logging camps in the province, employing about 60,000 men. The timber industry represents one-half of the industrial capital, one-half of the pay roll, and 37 per cent. of the annual production of wealth in British Columbia. The first shipment of British Columbia wood pulp to an Atlantic coast port was forwarded recently to New York by way of the Panama Canal. The consignment consisted of 500 tons and was the product of the Powell River Lumber Company. Other shipments will probably follow, as the all-water route by the canal has so reduced the cost of transportation that British Columbia mills will now be able to compete with eastern companies in the markets of the United States. The pulp plants in the province are working full capacity to meet the demands for their product.

The Russian Government has placed an embargo on all kinds of lumber, to prevent its exportation; walnut lumber, including Circassian walnut, much prized by American furniture makers, is specifically mentioned.

North Shore Loggers Fairly Active

Thessalon, Ont., November 17 (Special to the Canada Lumberman): Lumbering is fairly active in this part of Algoma. The Thessalon Lumber Company; Graves, Bigwood & Company; the Hope Lumber Company, and others are logging extensively, principally owing to the very large amount of timber blown down last year which would deteriorate very much if not cut this year.

The demand for cedar ties, posts, etc., which was very good for some years past for the American market is not in evidence this year. This trade seems to have entirely ceased, owing to the money stringency and unsatisfactory railway conditions in the United States.

The pulp wood industry here has undergone an entire change. In former years the wood was taken out by the settlers for small contractors and the work distributed among the settlers in the agricultural area. The raising of the embargo on pulpwood exported from Crown lands this year has put the business in the hands of the lumber companies and it will be conducted along the same lines as logging operations. This cuts out the small contracts formerly taken by settlers. One contractor who, last year, purchased 6,000 cords from the settlers, tells me he cannot get a market this year as the manufacturers are buying in larger quantities direct from the lumbermen. While this legislation was intended to let the lumbermen get out the fallen tmber, and thereby save the dues for the treasury, as well as saving the timber, it does not appear to be giving general satisfaction. It was intended only to apply to fallen timber, but, so far as I can learn, the amount of spruce timber blown down in the storm of last November is very small. This is easily accounted for as the spruce grows mostly in the valleys and is well protected from wind storms by the surrounding mountains and the larger timber. As the raising of the embargo was only intended to save the blown down timber and therefore will only apply to this year, it is expected that another season will bring better conditions for the settlers and small dealers in pulpwood.—J. B. Dobie.

North Shore Trade Picking Up

Thessalon, November 16; (Special to the Canada Lumberman): This has been a very fine fall for bush work. Men are very plentiful and the lumbermen are getting their logs skidded very reasonably. In this vicinity there are more logs being got out than there have been in the last few years, as a result of the down timber and the fires of last May. The mills are now about shutting down for the season. Some of them have already closed and the next few days will see them all shut down for the season. The yards at the mills are all filled up with lumber, all of which is sold.

The last sale of the season was made a few days ago when Eddy Bros. & Company, Limited, sold their entire stock to a Buffalo firm. This was the finest stock on the shore. I understand that it brought a fancy price as some firms from England were bidding for it.

The Hope Lumber Company are operating about fifty miles north from here and have a large Packard freight truck for hauling their supplies. This truck hauls four tons at a load and runs about five miles an hour. It does the work of fifteen pair of horses, which is a great saving. This method of working will enhance the value of timber in the north by facilitating the hauling of supplies, which was the only drawback on a long tote road.

There will be great activity in the pulpwood business this year owing to the Ontario Government permitting its export for this year, the pulpwood being in good demand on account of the war.

H. H. Bishop, the well-known lumberman, of the Thessalon River, arrived among us from Chicago recently. He left at once for the tall timbers, intending to bring out some big game.—Algoma.

Liverpool Trade Quiet and Unchanged

Farnworth & Jardine, Liverpool, Eng., in their wood circular, under date of November 2, say: In the business of the past month there is little change to report. The arrivals were moderate, and in the aggregate the deliveries fairly satisfactory, but the demand generally, except for woods suitable for some special Government requirements, is quiet. Stocks, with few exceptions, are not too heavy, and values firm. Ocean deal rates are stronger, and tonnage scarce.

Canadian woods.—Pine timber.—Imports during the past month were on a more liberal scale, but there is no improvement in the demand to report; stocks are ample; values steady. Waney pine—First Class: The arrivals, entirely to Manchester, were chiefly on contract, but also a few small consignment parcels still unsold; the demand is quiet, and deliveries light; stocks, slightly increased, are quite sufficient; values firm. Second class: There is little enquiry. Red pine—The demand is very restricted. Oak.—Imports arrived rather more freely, but chiefly on merchants' account for special railway requirements; the demand, however, is very quiet, and stocks, though not heavy, are adequate; values steady. Elm.—Imports of about 17,000 cubic feet, just arrived at Manchester, were entirely on contract; the consumpton disappointing, and stocks have increased, but values are firm. Pine deals arrived much more freely; there is little change in the demand to report; deliveries have been disappointing, and stocks are adequate values steady. Red pine deals were imported moderately; there has been rather more enquiry, and values are firm; stocks are light.

New Brunswick and Nova Scotia spruce and pine deals.—The import to the Mersey, including Manchester, during the past month was rather less than the corresponding period last year, viz., 10,390 stds., against 11,900 stds. in 1913; the demand has been fairly active, and deliveries satisfactory; recent sales show a further advance, and prices now rule on a very high basis; stocks are not too large. Ocean deal freights are firm and tonnage scarce. Pine deals continue in fair request; stocks are light; prices steady.

Birch.—Logs.—Imports nominal; the demand is quiet, and the deliveries light, but prices steady; stocks are adequate. Planks arrived freely; the consumption was rather disappointing, but stocks are not too heavy.

British Columbia and Oregon pine.—About 17,000 cubic feet arrived during the past month; the deliveries have been fair, but the stock is still heavy; values firm.

London Demand Greatly Increased

Churchill & Sim, London, England, in their monthly wood circular under date of November 5th report as follows:—

The main features of the wood trade in London during October have been the heavy Swedish importation on the one side, and the great expansion of the demand on the other, as evidenced by the deliveries for the month totalling some 48,000 standards by comparison with 27,000 standards in October, 1913. The quantity of prepared boards received from Sweden has been the heaviest item, and with this exception, the aggregate supplies have been smaller than usual, owing to a complete cessation of shipments from Finland and a very greatly reduced quantity available from Russia. A large business has been arranged during the month for Swedish productions, and Archangel shippers have been able to realize some stock where freight was included in the sale. Unfortunately, at a time when merchants are impatient for delivery of pressing orders, a serious congestion of traffic at the docks is proving a great hindrance to further business, and is causing steamer owners to fight shy of chartering with London as a destination. This is not the first season that the trade has experienced such troubles, which are no doubt temporary, but extremely inconvenient and expensive to all parties while they last, and when normal times and seasons return it may be hoped that some comprehensive steps may be taken to relieve the London trade of its present day disabilities which tend to greatly circumscribe its area of distribution of wood. Freights are inclined to harden on account of the lateness of the season and the dangers of North Sea traffic, and for the reasons stated above, owners are giving preference to cargoes destined elsewhere than London for the moment.

From the St. Lawrence the imports were:

Pine Deals	244,000 pieces	against	437,000 pieces in 1913.
Spruce Deals	535,000 pieces	against	971,000 pieces in 1913.
Birch Planks	147,000 pieces	against	284,000 pieces in 1913.

and from New Brunswick, etc.—

Pine Deals	19,000 pieces	against	28,000 pieces in 1913.
Spruce Deals	503,000 pieces	against	420,000 pieces in 1913.
Birch Planks	359,000 pieces	against	328,000 pieces in 1913.

About the usual supplies of pine and spruce came to hand from the St. Lawrence during October, but there was little alteration in market conditions and prices. A large importation of spruce from the Lower Ports arrived, this market having considerably benefitted from the cessation of the Petrograd and Riga supply of whitewood. Prices have been driven up to a high level, which buyers are inclined to regard as somewhat dangerous for any but immediate shipments, so that business is checked pending the evidence of a continuance of the great demand of the past two months. There is no alteration in the position of Canadian hardwoods, but prices of birch planks are suffering from want of demand for the moment.

October witnessed a small importation only from the Southern States. The stock in London, both of pitch pine timber and Oregon pine is heavy, but the October demand was very satisfactory. London prices improved during the month both for sawn timber and for Oregon pine, especially for the latter.

Freight Advances Stiffen Liverpool Prices

Smith & Tyrer, Limited, Liverpool, Eng., in their monthly report under date of November 2, say:—The business done during the past month has been very largely owing to the demand for government work. Stocks are not getting depleted so rapidly as was anticipated and probably they will be sufficient, in conjunction with the winter import, for the requirements. The rise in freights has stiffened prices. Hardwoods have shown little change. Spruce deals continue in good demand, chiefly for war office material, and prices are well maintained. Cargoes are now offering very sparingly and liner parcels meet with ready buyers. Birch.—There is more demand for logs, and planks have a better tendency, but stocks are still ample. Pine

deals have moved off slowly with a sluggish demand. Hemlock is more enquired for, and some transactions for sleepers have taken place. Pacific Coast woods are without much enquiry. Oregon pine timber is moving rather better but stocks are sufficient. Clear spruce can only be sold at a low figure.

Liverpool and Manchester Stocks

H. W. Lightburne & Company, Liverpool, Eng., and John E. Moore & Company, Limited, St. John, N.B., furnish the following report upon Liverpool and Manchester stocks on November 1st.

Spruce and Birch

Month Ending, 31st October, 1914.

Liverpool

	Import			Consumption			Stock		
	1912.	1913.	1914.	1912.	1913.	1914.	1912.	1913.	1914.
N.B. & N.S. Spruce & Pine, Stds. ..	1,510	3,520	2,960	3,730	1,620	4,860	6,100	9,740	7,280
Birch Logs, Loads	200	20	60	120	80	80	1,220	460	300
Birch Planks, Stds.	218	297	473	230	152	327	855	861	564
Manchester									
Spruce, Stds.	2,990	8,470	7,430	6,410	7,450	5,950	12,450	26,290	14,670
Birch Logs, Loads	0	0	0	60	40	100	440	280	820
Birch Planks, Stds.	67	134	346	133	85	145	727	600	818

Stocks in Manchester and Liverpool Combined

Spruce

	1910.	1911.	1912.	1913.	1914.	
Manchester	19,090	19,700	12,450	26,290	14,670	
Liverpool	9,140	8,180	6,100	9,740	7,280	
	28,230	27,880	18,550	36,030	21,950	Stds.
Birch Logs						
Manchester	50	220	440	280	820	
Liverpool	100	840	1,220	460	300	
	150	1,060	1,660	740	1,120	Loads.
Birch Planks						
Manchester	630	236	727	600	818	
Liverpool	285	503	855	861	564	
	915	739	1,582	1,461	1,382	Stds.

Barbados Market Report

S. P. Musson, Son & Company, Barbados, report under date of November 2nd as follows:—Lumberstuffs.—White pine—The only arrival during the fortnight has been the Trn. Schr. "Emily Anderson" from Ostrea Lake, with some 240,000 ft. which had been previously sold to arrive. As advised in our last, the market is in a good position for further shipments, and we value first arrivals at around $34 for merchantable, and $26 for second quality. Spruce—The "Emily Anderson" also brought some 35,000 ft., which had also been sold to arrive. The market is lightly supplied, and sales could be made around $27.50 for shippers. Pitch pine—No receipts. Shingles—The market is fully stocked, and further supplies are not needed at present. Shooks —No receipts. Wood hoops—We note the arrival of some 2,686 bundles by London steamer for dealers' accounts.

United States Trade Situation Much Improved

Washington, D.C., reports state that Government officials in various departments interested in the business situation are now confident that the most serious effects of the European war on American business have passed. The restoration of the credit balance with Europe has greatly eased the situation, the increasing demand from Europe for American food supplies and the sudden development of an abnormal trade in articles needed by the huge armies now in the field aiding to that end.

No accurate figures on the contracts of the latter character are obtainable, but orders for horses, mules, army clothing, harness and the like have flooded factories and stockmen in some districts. It is said that, including ammunition orders, this business reaches the huge total of more than $200,000,000. In several lines factories are straining to highest capacity to meet the demand.

Other factors that have aided in clearing up the situation are the opening of the federal reserve bank system, which business experts look upon as the backbone of the country's resources; the opening of the Panama Canal, which has already increased freight traffic to the west coast of South America, and the entry of more than eighty foreign built ships into American registry, under the emergency act passed by the last session of Congress.

Of the shipping situation, officials report that there is a growing scarcity of carriers for American export commerce, because of the rapid increase in the bulk of that traffic. Freight rates have risen remarkably and it is said that shipping companies are now selecting their cargoes with greatest care, avoiding articles of even a semi-contraband nature. Huge shipments of grain are awaiting transportation at many ports.

Reorganization of Yellow Pine Association

Readers of the Canada Lumberman will recall that a few months ago the Yellow Pine Manufacturers' Association of the United States met with a serious blow in the form of a legal decision in connection with the case of the State of Missouri against the Association. This decision prohibited manufacturers of yellow pine in the States of Missouri from affiliating in any way with the present Yellow Pine Manufacturers' Association.

It is interesting to learn now that the Association does not intend to permit the industry to remain in the chaotic condition that would follow the abandonment of all organization. A meeting will be held in New Orleans, La., on December 8th at which a proposal will be made for the formation of a new organization, whose function will be chiefly to handle grades and inspection. Just what will be done with reference to the important and very efficient departments of the Yellow Pine Manufacturers' Association, as at present constituted, is rather uncertain.

A National Bureau for Lumber Use

An open letter to the lumber industry of the United States, written by one of the most able of retail association secretaries—Adolph Pfund, of the Wisconsin Retail Lumber Dealers' Association, has been widely published in United States lumber journals. This letter urges the need of a national organization to combat inroads on lumber use by substitute building materials. It is an old problem presented in a new way. Mr. Pfund's plan has features that merit the serious consideration of every manufacturer, wholesaler and retailer. First he would disseminate information concerning the proper uses of woods. He would have this handled through a central bureau of national working scope, which would carefully avoid promoting the use of one word as against another. Then he would encourage the development of fire-retarding paints. Following that he would have a system of information concerning wood construction, readily available for use in any city, town or hamlet where ordinances may be introduced, limiting the use of wood. And last but not least, the Pfund plan calls for a uniform building code, for cities of all classes, wherein wood could be presented on the basis of its scientific merit and not hampered by so-called "safety first" prejudice.

Value of Fire Wind Forecasts

On the Pacific slope in the country west of the Rockies the dangerous winds which, during the summer, are likely to cause widespread and destructive fires, commonly result from high pressure areas in Northern British Columbia, advancing southward towards Washington and Montana. Passing wholly over the interior, such a wind has but a small moisture content, and consequently is very drying. The value to forest protective organizations of being informed about such winds before they arrive is obvious. Co-operation with the government weather bureau to get forecasts of such winds was initiated in the United States by the Western Forestry and Conservation Associaion, of which Mr. E. T. Allen, Portland, is forester.

This co-operation work has been extended until now it includes both the Canadian and United States weather bureaus; while the fire wind forecasts are daily received and used through the fire season by the British Columbia forest service in Canada, and, in the Pacific states by the United States forest service, the various state forest services, and the many private forest fire protecion associaions, of which the Western Forestry and Conservation Asosciation is the central body.

The system has proved of considerable value to the British Columbia forest service this summer, but is at present of greater value to the protective organizations in the States, because there the much greater number of weather stations enables the forecasts to be made more definitely and accurately. With the opening of Northern British Columbia, now taking place by two railroads, such as the G. T. P., P. G. E., etc., many more weather stations will be established.

Interesting Redwood Exhibit at New York

An interesting exhibit of redwood has just been completed and installed at the Country Life Permanent Exposition in the Grand Central Terminal, New York City, N.Y. The A. Sherman Lumber Company, of the Grand Central Terminal, have full charge of this exhibit, through Mr. Geo. F. Gray, their resident manager. The exhibit was made possible through the efforts of Mr. Gray who realized that, in order to put this beautiful and useful wood before the eastern home builders and architects, an exhibit of this nature would be most beneficial. All who are interested in lumber and its use are invited to visit the exhibit and thus secure a good first-hand knowledge of redwood's adaptability and beauty. At an early date, a special day will be set aside at the exposition for redwood when a concert, lecture and moving picture exhibit will be given, the latter showing the operations of the Redwood Manufacturers Company, both at their plant and in the forest.

Sawing Frozen Timbers—Hammering Saws

Frosted steel is always brittle and a saw should never be used until the frost is taken out of the plate. This can be done by prying over the end of the carriage with a piece of board, holding the end firmly against and moving it along the saw. The friction will, in a few minutes, warm the saw and take out the frost. This will guard against the saw's cracking or breaking from frost being in the plate. In frozen timber run the saw as close as possible; that is, run as narrow a set of swage as will clear the plate and prevent heating. As frozen timber cuts much cleaner, less set is required. Do not have the set or swage extend as far into the body of tooth as in summer sawing; the point being narrower, requires less depth to support the corner. Keep good, sharp corners; file the teeth perfectly square across, line the saw nearly straight with the carriage, and frozen timber can be sawed as easily as any kind.

In sawing frozen timber some sawyers give their saw a little more lead, thinking it will aid in slabbing a log. This is a mistake, for the reason that if a saw is lined into a log, after the first or second cut or after the frozen cap is taken off, it will have a tendency to run into the log and make the lumber thin at the rear end of the cut. To prevent this the saw must be guided a little with the guide pins, and it will then run out in the first cut worse than before. It will be a trifle full between the rim and the centre and will heat at this point, causing it to tremble, flutter and work badly.

As to large circular saws cracking and breaking over the collar line, I claim saws never break in this manner when running straight, but invariably when "laying over" or crowding out of the log. To have a saw run perfectly true it is absolutely necessary that collars and stem of mandrel be true and well fitted, as any imperfections in these may lead to no end of truoble.

To guard against a saw breaking over collar line, great care should be taken to have it hang perfectly true on mandrel. To ascertain if the collars are defective, place the saw on the mandrel and tighten up the collars by hand. Test the saw with a straightedge, and, if found correct, tighten up the collar with a wrench, and test again with a straightedge to see if the position of the blade has been altered. If the change is noticed it is safe to assume that the saw is true and that the trouble lies in the collars, and they require truing up before satisfactory results can be obtained.

For large saws I prefer a collar that has a perfect bearing on the outer rim of at least ¾-in. (in a 6-in. collar), the other part being chambered out so that it will not come in contact with center of saw. For a collar larger than 6-in. this rim should be proportionately greater.

If the collars have become worn at the outer edge, so that when tightened with a wrench the saw will be full or convex on the log side, it will heat at the centre and become more convex, causing it to lay over from the log. The arbor should be so lined that the saw will lead into the log just enough to clear the centre in good shape, so that it will not rub against the log and heat the centre. If it heats and becomes expanded at this point it will dish and run either in or out of the log (usually out), causing the same kind of trouble as referred to above.

Another cause of saws cracking over the collar in this manner is that the saw, when adjusted for a certain (high) speed, is usually dishing when not in motion, but when running at the speed for which it is made is perfectly straight. If the speed be reduced while in the cut, the saw will become dished for want of necessary speed to straighten it out. In a case where it heats at centre, it will run either in or out of the log, forming a wedge between the saw and headblocks, eventually cracking or breaking the saw at or near the collar line by forcing it over this rigid point. Hence the importance of maintaining a uniform speed and having the tension adapted to it.

As stated before, large saws for a high-speed mill are, when properly adjusted, dishing when not in motion and great care should be taken to see that they are straight when running at their normal speed. In other words, they should dish or drop through as much one way as the other. To see that a saw is right in this respect, lay it on an anvil or board, hold a straightedge across saw at right angles with the part that rests on the board and the opposite edge that is being raised to allow the saw to drop through at the centre, and take the measurement of the amount it drops through. Then turn saw over and repeat the operation, noting if it drops or dishes alike on both sides. If it does, it is correct.

In mills where there is trouble from saws cracking over the collar, the saw should be tested to see that it hangs perfectly true and flat on the long side. This can be done by holding a 24-in. to 30-in. straightedge lightly on face or log side of saw in motion. If it is found to be correct in this respect, the centre should be carefully examined to see that it does not heat above a normal degree. If it heats quite a little at the centre the cause should be located and corrected; it is usually caused by a hot arbor. Where this is the case the arbor should be made to run cool, but where it is impossible to do so, I would recommend that the tension of saw be readjusted so as to leave it a little stiffer toward the centre. This will offset the tension produced by the heat of the arbor. This same adjustment of tension is advisable where there is not sufficient power to maintain a uniform speed when the saw is in a heavy cut. If saw is left a little stiffer for a distance of about 10 to 12-in. from the centre, the tendency will be to prevent it from laying over and crowding out, should there be a reduction in the speed.

Suppose we have a saw that has just come off the mandrel, has been doing heavy work and is dished. Take the long straightedge, lay it over saw and find out where the dish lies. Put saw on the anvil, with dish side up and begin hammering on high side. This saw has undoubtedly lost its tension (or it would not be dished) and must be brought back to its normal centre. Remember to do as much work on the one side of the saw as on the other, being careful to get one hammer blow as near over the other as possible. Begin striking in next the eye, working towards the rim. If saw has been blistered, or is in any way out of normal condition, work around this spot and do not touch it until you have finished the other part of the saw.

Now suppose that you have gone over the saw once, treating both sides alike. Hang it on the hook at the side of the bench, take the long straightedge and see what effect your blows have had on the plate. Next, take the short straightedge, roll the saw around on the hook and test for lumps. This should be with about a 16-in. straightedge at first, using a shorter one afterwards. Mark high lumps with a cross, the longer lumps with a wavy mark. Put saw back on the anvil and strike the lumps with the round-face hammer. The lumps marked with the wavy mark are sometimes knocked down with peen end of the hammer, but in my experience I have not found this practical; in nearly every case I get better results by using the round-face hammer.

After you have knocked the lumps down thoroughly, treating both sides of saw alike, put it on the floor, take the long straightedge, lean the saw a little either way from you, and see what effect the hammer blows have had on the tension. Put saw again on the bench, placing your arm under it and lifting up, holding it on the forearm as far as the elbow. Raise it up and down, drawing the straightedge back and forth over saw, turning it either way clear around the saw, making a mark at the place you started from. This will show the effect the hammer blows have had on the tension. If the body of saw is loosened up properly it should now drop away from the long straightedge on either side, but will show a little more crown or dish on one side than it does on the other. The saw must be dished each way for either a right or left-hand mill, and particular notice should be taken to find the mark "Log Side," before starting in to hammer.

Now suppose that you have worked all the lumps down and got both sides of the saw as near alike as possible but have probably got more tension than you want. To reduce the tension, place saw again on the bench, and strike the first blow near the roots of teeth. Make a mark where you put the first hammer blows and strike light blows clear around the saw, we will say about 1-in. apart. Here you will see where the effect of the wrist-and-elbow motion comes in. If you have practiced this thoroughly you will be able to stiffen the saw very easily, but be careful not to take out too much tension; the tension must fit the speed of the mill.

Do not start to hammer a saw until you have taken the speed of the arbor with an indicator. This will give you an idea of about how much tension to take out or leave in the saw. After you have gone around the rim and taken out as much tension as you think necessary, place saw again on the floor and test it, rolling it from you with the light shining against the straightedge. If you have not taken out enough tension or, more plainly speaking, if saw is not stiff enough, place it again on the bench, make another mark, start your first hammer blow about 1-in. in toward the eye of the saw, and go around it as before, taking care not to strike too heavy blows.

Having completed this operation, stand the saw again on the floor, place your left hand on top of saw and with the right hand take hold of the eye of saw and try to pull it through. You can do this if your saw is open enough. If you cannot do it this way, put both hands on top of saw and place your knee against the eye, giving a strong pull. If the saw is very stiff for slow motion; for fast motion, it should be quite limber in the eye.

The saw is now ready to go on the mandrel and should be tested to see if the tension is correct for the speed. A good way is to stand the saw up beside a perpendicular post, a studding in the filing room will do. Set saw straight up, then lean over it against the studding so that the bottom will come about 12-in. from the teeth on the floor. Drop the top of saw against the studding and see that it drops through the eye. Make a mark on the floor where the saw stood, roll it away and reverse it, putting the other side next to the post. If it drops through the same as it did on the opposite side, the tension is true. This method can only be used on high-speed saws, as a stiff saw will drop through the eye of its own accord.

The next move is to put the saw on the arbor and see that it runs true. Let it hang true on the arbor, and set the outside guide so that you can just see daylight between the saw and guide. Put on your log and proceed with the first cut. If the saw runs true and does not "snake" it will stand up to its work, and it is evident then that you have your tension right. But if it does "snake" and the

top of the saw lops over either way, it has too much tension, some of which must be taken out.

To take out more tension do not use the same lines as before, but go back to where you first started, near the roots of the teeth, and go around the saw as before. There are several things to look at in doing this: Be sure that saw is dished properly and be sure that you have taken down all the lumps. After you have examined the saw it is best to take the straightedge and tension gauge and go over it, to see that it is perfectly level. You can do this by using straightedges of different lengths. I have used straightedges as short as 4-in. on 6-gauge, 60-in. circular saws, and found them to be practical.—E. C. H., in The Wood-Worker.

Timber Stand on U.S. National Forests

The district forester, United States service, recently has completed an estimate, by species, of the timber on the twenty-eight national forests in Alaska, Oregon and Washington. Of the total stand of 292,594,000,000 board feet, Douglas fir ranks first with 95,756,000,000 feet, and is found on all but three of the national forests—the two in Alaska and the Fremont in south-central Oregon. On account of the abundance of western hemlock timber on the two national forests in Alaska, this species ranks second with 72,851,000,000 feet. Yellow pine holds third place, with 30,363,000,000 feet, and is found chiefly east of the summit of the Cascade mountains in Oregon and Washington. These three species constitute 68 per cent. of the total stand under the jurisdiction of the forest service in these three states. This estimate which is only approximate and will be improved upon as opportunity offers, segregates the remaining amount of 32 per cent. into twenty other species, some of which, like redwood, are found on only one or a very few of the national forests in this region.

The Efficient Stock Sawyer

There is no part of the wood-working plant where brains and the right order of efficiency count for more than at the stock sawyer's bench. There is little need to dwell on the importance of the stock sawyer, for on him depends the quality of the material entering into work and also the quantity of saving or wastefulness in the utilization of lumber. The point that needs dwelling on, and an interchange of ideas and views, is that of how to get the best order of efficiency out of this work.

It is comparatively easy to determine points of efficiency in the handling of material through various machines in the mill or factory, because it simply involves certain operations on specified quantities of timber of certain shape and size. This makes it a simple matter to take stock of and eliminate lost motions and wasted energy. When it comes to the stock sawyer's bench, however, more complications arise than the average efficiency expert ever dreamed of in his philosophy of eliminating lost motions and wasted energy.

The efficiency expert conceives systems and detailed records of work done and time required, as among the first essentials of attaining results. There are things which are simple enough in the operation of many machines that are serious handicaps and stumbling blocks to the right order of efficiency at the stock sawyer's bench. Indeed, often to get the best order of efficiency one must break through all the red tape of system, and do the work in such a manner that it is almost impossible to keep a time check or record of how long it takes to do this or that. This is because the right order of efficiency often calls on the stock sawyer to do work on several different orders or items at the same time; that is, to cut one board into parts that will apply on a number of different orders.

To understand more clearly the work of the stock sawyer let us take specific instances, for the work varies in different institutions and with different materials. Let us consider, for example, a stock sawyer in a jobbing planing mill. Here we find the work considerably different from that of the furniture factory, because often the stock sawyer has nothing in hand but a single order to fill. He selects from the lumber yard material that will fill this with the least possible waste, and what waste he has is set aside to be utilized some time in the future on an order that it will fit.

Suppose the stock sawyer has an order for window and door casing, say part of the interior trim on some job. Let us say, for example, the dimensions include a finished size of 4/-in. x 6-ft. 5-in. for door casing and 4½-in. x 5-ft. 4-in. for window casing. If the order calls for yellow pine this item is very simple and the best order of efficiency can often be had by not taking it to the cross-cut saw at all in the beginning. Reference to the length will show that 12-ft. stuff can be used for one length of door casing and one of window, and 16-ft. stock for three lengths in windows.

If the yellow pine has been properly sorted for widths when it is piled in the yard or storage shed, the best order of procedure is to get enough 6-in. strips of the right lengths to make this order. If they vary somewhat in width it will be advisable to take them to the rip saw and rip them to uniform width. It is better for the planer man and makes for greater efficiency there, to let them go to the planer full length and not do the cross-cutting at the swing saw, but let them be cut to specific lengths afterward. If it is a standard or frequently used pattern no harm is done if a few extra strips are included in the round, because these can be stored away and utilized on the next order.

All that is a simple and easy operation and can easily be checked up. But suppose the order calls for oak? Then an entirely different order of procedure is called for. In the first place, oak and other hardwoods are not bought and sorted to widths and lengths like pine. In the next place, it is not the common practice to buy comparatively clear strips and boards in oak, that can be worked up without much loss. These are difficult to obtain and cost too much money. The usual practice is to buy oak board of random widths and lengths, varying in grade from No. 2 common to select, and possibly a few clear strips and boards for special purposes. Quite commonly an order of this kind, gotten out of oak, would come from a pile of No. 1 common oak boards varying in width and length.

The order for the casing alone would call for boards substantially 6-in. wide in the rough. Maybe these will be available from the lumber yard, but the chances are that they will be so mixed in with other widths that it will take too much time and work to pick them out for widths and lengths. Some sorting of lumber may be practical, but generally the best and simplest proposition would be to take the mixed run of lengths and widths in boards that comes nearest to fitting the order. Then, when it comes to working these up, get all the other items on the order for this job of interior trim, and any other jobs that may be in the mill calling for oak. The idea in assembling a lot of items or orders in this way is so that the lumber as it comes may be worked up economically. Incidentally, that is why all the red tape of systems, and efficiency ideas of keeping a time check on work, must be broken through to get the best results.

Along with the call for oak casing there may be window heads, stools, base and perhaps a number of special items. By checking over these and noting their widths and lengths the stock sawyer of parts—that is brainy parts—can judge as each board comes on his swing saw bench what item or items it will make to the best advantage. He will find not only variety of widths and lengths in the lumber itself, but there will be knots to cut out, and certain clear spaces between knots which may determine by their lengths what they are best fitted for. Again, a wide board may have a shake or some other defect interfering with its width, and so it goes. Each board must be measured by the eye of the stock sawyer as it comes on his bench, and cut and trimmed to fit such item or items as will, in his judgment, utilize the most of the lumber to the best advantage.

This makes it necessary to cut a piece on this item and a piece on that order, and so mix up his cutting to utilize the lumber properly, that it is not practical to keep a check on either the time or material used for getting out any particular item. What he is after is results, not records, and the only way that he can get the right kind of results is to keep his mind free from time checks and timber records and concentrate it on the problem of getting the most good material of the right size out of the lumber, with the smallest volume of ultimate waste.

In the matter of waste, the more variety that he can handle in orders, without becoming confused, the better are his chances to reduce the waste pile and utilize all of the good part of the lumber brought in. Some waste will result that will have to be piled aside against the time when something will come along that it can be utilized for. This waste, however, will be infinitely small when he is getting out a number of articles varying in dimensions, as compared to the getting out of one particular item or order at a time and setting aside stock which will not work into it.

In working oak it will generally be found advisable to cut such stock as has been under discussion to individual lengths before it goes to the planer. Especially should this be done if it is necessary to eliminate knots and defects, because oak knots do more harm to planers than the saving in time and energy that would result from handling long, whole boards would amount to. It is well to bear in mind, however, that if there is edging or ripping to be done on the boards it is often best to do this before cross-cutting, so as to have the long strips for working into moulding of various kinds that will be used in putting up inferior hardwood trim.

Efficiency at the stock sawyer's bench means settling down to systematic study and work that differs materially from that conceived by the average efficiency expert. Insttad of concentrating on one item at a time, the efficient stock sawyer must train himself in the systematic handling of a multiplicity of items, to the end that he may reduce the boards to available stock at one handling, and thus eliminate the waste incident to piling boards and parts of boards aside and handling them again to get something out of them.—C. F. J. in The Wood-Worker.

Pulpwood operations along the line of the Temiskaming & Northern Ontario Railway have been much heavier than usual this year. Traffic officials predict that the tonnage of spruce hauled to the mills will be 30 per cent. in excess of that of last year. This means that probably 120,000 cords of pulpwood will be handled by the railway.

The Cost of Lumber Production

An Analysis Made From Actual Experience

[Editor's note:—The similarity in logging and manufacturing conditions in Wisconsin and Northern Michigan and in many parts of Eastern Canada, as well as the fact that the products of the mills in these States are important factors in Ontario markets, will make the following article on the cost of lumber of much interest to Canadian lumbermen].

At a recent meeting of the Northern Hemlock and Hardwood Manufacturers' Association in Milwaukee, President R. D. Goodman, of Goodman, Wis., presented some statistics compiled by him from his own operations and from information received from other members of the association as to the cost of lumbering.

He introduced his remarks with the following:

Lumber is the only great industry still completely at the mercy of the law of Supply and Demand. While fluctuation in price between certain limits is necessary for the regulation both of production and of consumption, in other industries well established costs of production almost wholly determine the selling price. Very slight price changes are sufficient when uniform systems or principles of accounting and standardized methods of figuring costs enable the manufacturer to gauge his production by the demand for his product and thus maintain stable values instead of wasting his energy and tying up his capital in producing a commodity for which there is no demand. He can devote his attention to bettering the quality and developing the uses of this commodity and advertising and marketing it and thus to a great extent he is able to create the demand for his product.

This is the first advantage of Uniform Cost Accounting—that it furnishes the information required for the maintenance of a stable or but slightly fluctuating price level.

The second advantage is that the definite knowledge of costs leads inevitably to economies and efficiencies in production. In submitting a tentative table of costs producing various kinds of lumber in Wisconsin and Northern Michigan I feel that the first criticism the average lumberman will make is that the figures are higher than they should be. The costs presented are not higher, however, than actual cost of some of the large and well managed mills in the state. The statement was presented at the October meeting of the Northern Hemlock & Hardwood Manufacturers' Association, by the writer, and neither at the meeting nor after the meeting was a single member in a position to state that his actual costs were any less.

Cost of Lumber

A basis of uniform cost sheet for Wisconsin and Upper Michigan:

LUMBER—COST SHEET

Logs	Ash	Basl-wood	Birch	Maple	Soft Elm	Oak	Hem-lock
Stumpage	4.00	7.50	5.00	1.00	6.50	9.50	2.00
Stumpage expense	1.00	1.50	1.00	.50	1.50	1.50	.50
Actual logging	5.00	4.25	5.00	5.50	4.75	5.00	3.50
Roads and spurs	1.00	1.00	1.00	1.00	1.00	1.00	.75
Log haul or logging R. R.	1.00	1.00	1.00	1.00	1.00	1.00	.75
Freight	2.00	1.75	2.00	2.00	2.00	2.00	1.75
Overhead	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Cost of logs at mill	15.00	18.00	16.00	12.00	17.75	21.00	10.25
Overrun	30%	30%	30%	30%	30%	30%	30%
Lumber.							
Logs at mill	11.54	13.85	12.30	9.23	13.66	16.15	7.88
Mill to pile	3.50	3.75	3.50	3.60	3.75	3.50	3.00
Plant overhead	1.00	1.00	1.00	1.10	1.00	1.00	.80
Shipping	.50	.50	.50	.50	.50	.50	.50
Sales expense	.50	.50	.50	.50	.50	.50	.40
General expenses	.50	.50	.50	.50	.50	.50	.40
Discount and deductions	.40	.40	.40	.40	.40	.40	.40
Actual cost	17.94	20.50	19.70	15.83	20.31	22.55	13.38
6 per cent. on investment	.90	.90	.90	.90	.90	.90	.90
Total costs	18.84	21.40	20.60	16.73	21.21	23.45	14.28

EXPLANATION—

Stumpage

Stumpage Expense

Actual Logging

- Sawing
- Swamping
- Skidding
- Loading
- Loading
- Supplies and Repairs

Roads and Spurs—Proportionate cost of Camp Buildings, Roads and Railroad Branches

Log Haul or Logging Railroad

- Sleigh Haul
- Railroad Maintenance
- Railroad Operation

Freight—Railroad Freight when shipped on line of Common Carrier—This amount is an arbitrary. Mills located in their own timber have other expenses which offset this item.

Overhead—Logging Supt.—Office Expense, Workmen's Compensation, Fire Insurance, Depreciation of horses and equipment, Foreman's scaler and clerk.

Mill to Pile

- Mill Labor
- Supplies and Repairs—Mill and Yard
- Oil and Waste
- Power
- Superintendent
- Sorting and Piling

Plant Overhead—Depreciation to Mill—Insurance on mill and on lumber, taxes on same, liability insurance, office expense, extraordinary operating expenses.

Shipping—Cost varies with manner of selling lumber, 25c. more when shipping on grades.

Sales Expense (must include commissions)

General Expense

Discount and Deductions

Interest—6 per cent. on estimate of $150.00 of investment in Fixed and Working Capital for every M. feet manufactured per annum.

Stumpage Cut.—By stumpage is meant the amount per thousand credited to timber account during a given period for each thousand feet of logs cut. In the past there was not much distinction made between the cost of stumpage cut and the cost of standing timber, as it was figured that the growth of the timber and its increasing value took care of the carrying charges. But in Northern Wisconsin and Upper Michigan timberalnds are not held in unbroken groups, but in forty-acre tracts and these forties give the timber plot the appearance of a checker-board. With various timber owners cutting in the same general tract and with settlers taking up the cut-over land any systematic forestry is made impossible. In most of the hardwood forests the deterioration of timber from old age offsets the growth of the younger trees and the loss through fire in many cases becomes an actual carrying charge. Through various kinds of competition the ever increasing use of substitutes and the ever widening field of competition in the South and on the Pacific Coast has resulted in a stationary range of timber values for the past four or five years and gives no assurance of increasing timber values in the years to come, so that the stumpage cut each year must bear not only the timber cost, but the carrying cost of the entire group, so that the cost of sumpage may really be figured at about twice the present value of the standing timber.

Stumpage Expense: The only portion of the timber in a given working tract, which produces income over a given period is that portion of it which is cut during that period so that the taxes levied on the timber must be carried by the stumpage—the cost of fire protection; cruiser and other supervising costs of the entire timber tract is divided up on the actual stumpage cut and placed on the various kinds of wood in proportion to their relative value.

Actual Logging: This item consists of sawing, swamping, skidding, loading, supplies and repairs. It will be noticed that the cost of actual logging is much greater for hardwoods than for softer woods, especially hemlock. It also varies with the average size of the logs, those kinds of wood which run to larger trees produce more logs per acre and decrease the cost of logging. This accounts for the variations in this item through the different woods.

Roads and Spurs: This item covers the proportionate cost of camp buildings, roads and railroad branches spread over the estimated thousand of feet they serve. Their cost varies with the stand of timber and the character of the country. The average used is for Wisconsin and Upper Michigan—it would not hold good for Lower Michigan.

Log Haul or Logging Railroad: This item represents the cost of transporting the log from the point where it was loaded in the woods, either to the mill or to the cars of a common carrier. If the operation includes a logging railroad, the operation of this road and the maintenance of the main line is covered by this item.

Freight: The cost sheet we are considering is a uniform cost sheet. FREIGHT is one of the most variable of items. Some operators have to pay more than the amounts I have used and some less, and those operators who have built their mills in the woods or on their own logging railroad escape this item altogether, but in escaping it meet with other forms of expense, one of which is the necessarily higher rates of wages and a larger investment in taking care of employees.

Overhead: This item represents the items of general expense in the logging department which are not directly affected by the number of thousand feet cut—such as salaries of logging superintendent, fore-

man, scaler and clerk; proportion of the office expense; cost of workman's compensation; fire insurance, fire patrol and fire loss. The items of fire patrol and fire loss vary greatly throughout the year, but should be prorated in figuring a uniform cost sheet. Under this heading also are included the depreciation not made up by ordinary repair and replacement, such as the obsolescence of steam machinery and the depreciation of horses, this latter item should be figured around 20 per cent. per annum on the total value of the horses in the logging department. Under this item also is included the average cost per thousand of contingencies of loss inherent in logging operations—forest fires, wrecks, the extraordinary cost of cleaning up odd corners or isolated groups of timber; depreciation in hardwood logs occuring between the time they are cut and the time they are sawed. Every lumberman can add from his own experience to this list.

Cost of Logs at Mill: This item represents the total cost of logs delivered on cars at mill per M. feet Scribner Scale.

Over-Run: Scaling of logs is not an exact science. The Scribner Scale itself is an approximation, but using this scale and sawing a fair run of logs to fair advantage an over-run of 20 to 30 per cent. in No. 3 and Better lumber is obtainable. By dividing the cost of the logs by 130 per cent. we obtain the cost of logs per M. feet of lumber produced when the over-run is 30 per cent.

Logs to Mill: This item is explained in the previous paragraph. Up to this point in the cost sheet I have been figuring costs per M. feet log scale. We now pass to costs per M. feet of lumber produced.

Mill to Pile: This item is what is generally called "Cost of Manufacture." It represents the following specific items:

Boom Expense—Cost of unloading logs, sorting and handling in mill pond and maintenance of mill pond.
Mill Labor.
Supplies and Repairs—Mill and Yard.
Oil and Waste.
Power.
Superintendence.
Sorting and Piling.

Plant Overhead: This item varies greatly with the size and character of the operation, the amount of standing timber and the conservativeness of the management. In my operation it is more than $1.50 per M. It consists of the following items of expense: Depreciation to Mill (this is depreciation not covered by repairs and renewals and should be sufficient to take care of the obsolescence of machinery and the rate which will reduce it to junk value when the timber tributary to it has been cut: Fire insurance on mill and lumber; Taxes on same; Liability Insurance; Office Expense; Extraordinary Operating Expenses.

Shipping: Cost varies with the manner of selling lumber; 25 cents more should be added to this item when lumber is shipped on grades.

Sales Expense: Sales Manager and Sales Office Expense; Travelling Salesmen, Commissions and Advertising.

General Expense: Salaries General Officers; Association Dues; Legal Expenses, Donations, Bad Accounts.

Discount and Deductions: These are within one or two cents of the actual figures for three Wisconsin mills over a period of five years. Under this heading is included the usual 2 per cent. cash discount, when taken; interest at one-half of one per cent. per month on overdue accounts; allowances made for alleged shortages and off grade lumber cost of re-inspection, etc. While this item is not properly chargeable to the cost of lumber, for convenience it is included in our uniform cost sheet, so that our total costs will be directly comparable to the gross price asked for lumber and not the strictly net returns on same.

Interest: 6 per cent. on estimate of $150.00 of investment is fixed and working capital for every M. feet manufactured per annum. This estimate is made on the basis of mill cutting twenty million feet per annum with a fixed capital of $150,000 and a working capital consisting of accounts and lumber in pile of $150,000. These figures fall considerably below the average investment under such circumstances and do not include timber or timber land. It will be noted that there is, in this cost sheet, no mention made of planing mill or the cost of dressing lumber. In the territory to which this cost sheet applies it is not the custom to count dressing as a part of the cost of manufacture, but as extras for which a definite scale of prices is made in addition to the cost of the rough lumber. The utilization of by-products is not figured, except in the determination of the stumpage cost of hemlock. It is figured that the average stumpage cost of hemlock is $3, and $1 has been deducted from this to cover the value of bark and lath produced.

If the reader, who I suppose to be a manufacturer of hardwood, will examine the stumpage prices of the various woods and bearing in mind the distinction made between the cost of stumpage cut and the value of standing timber, and if he will then correct this item to suit his particular locality and his particular tract of timber, and if he will correct his cost of logs at mill accordingly; if he will then take his own average per cent. of overrun and divide the cost of logs at mill by 100 per cent., plus his over-run, he will obtain a cost of logs at mill per M. feet of lumber which, added to the cost items taken from the cost sheet, will give him what might be called the standardized cost of lumber in his operation. It may be that he will have something to his credit in the item of logging freight—if he does it may be that this advantage will disappear when he makes his price f.o.b. Milwaukee or Chicago, and some other operator who may figure that he is at the disadvantage on the log freight may get this back in having a better rate to market.

The costs given in the cost sheet are not minimum—they do not represent the highest efficiencies in labor cost under temporary periods of surplus labor when wages have been reduced, but they are intended to represent the normal average cost in Wisconsin and Upper Michigan with prices of supplies and labor about on the average of the year 1913, nor is it to be assumed that reduced wages in conditions like the present will greatly alter the costs I have computed, for as an offest to a slightly lower wage scale are higher prices in many of the supplies; the added expense of carrying heavy stocks and a general slackening of the cut.

The next step in the problem of adjusting selling price to cost is to determine an average yield of grades in each of the woods used throughout this territory. Through the assistance of Mr. R. S. Kellogg, secretary of the Northern Hemlock and Hardwood Manufacturers' Association, data on this subject has been collected from over fifty of the mills in Wisconsin—the average result has been used in preparing the following determination of prices. The prices obtained by this method do not differ greatly from the actual prices obtaining during the first half of the year 1913, with the exception perhaps of maple.

In the following tables the per cent. of grade is figured on the entire cut of the log.

Adjustment of Prices to Cost

	F.O.B. Chicago	F.O.B. Mill	Percent. of Grade	Amount per M	
ASH.					
F & S	$44.50	$41.00	15	$6.15	
No. 1	28.50	25.00	25	6.25	Avge. for No. 2 &
No. 2	18.50	15.00	25	3.75	Btr. F. O. B.
No. 3	11.50	8.00	35	2.80	Mill $24.85
			Total ...	$18.95	Cost $18.84
BASSWOOD.					
F & S	43.00	40.50	18	7.29	
No. 1	27.00	24.50	26	6.47	Avge. for No. 2 &
No. 2	17.00	14.50	26	3.77	Btr. F. O. B.
No. 3	16.00	13.50	30	4.05	Mill $25.04
			Total ...	$21.58	Cost $21.40
BIRCH.					
F & S	43.00	39.00	20	7.80	
No. 1	27.00	23.00	25	5.75	Avge. for No. 2 &
No. 2	18.00	14 00	20	2.80	Btr. F. O. B.
No. 3	16.00	12.00	35	4.25	Mill $25.16
			Total ...	$20.60	Cost $20.60
MAPLE.					
F & S	36.00	32.00	12	3.84	
No. 1	26.00	22.00	25	5.50	Avge. for No. 2 &
No. 2	19.00	15.00	23	3.45	Btr. F. O. B.
No. 3	14.00	10.00	40	4.00	Mill $21.31
			Total ...	$16.79	Cost $16.73
SOFT ELM.					
F & S	38.10	35.00	15	5.25	
No. 1	27.10	24.00	25	6.00	Avge. for No. 2 &
No. 2	21.10	18.00	20	3.60	Btr. F. O. B.
No. 3	19.10	16.00	40	6.40	Mill $24.75
			Total ...	$21.25	Cost $21.21
OAK.					
F & S	49.00	45.00	15	6.75	
No. 1	34.00	30.00	28	8.40	Avge. for No. 2 &
No. 2	24.00	20.00	22	4.40	Btr. F. O. B.
No. 3	15.00	11.00	35	3.85	Mill $30.00
			Total ...	$23.40	Cost $23.45
HEMLOCK.					
No. 1	20.00	17.50	40	7.00	
No. 2	16.50	14.00	20	2.80	
No. 3	13.50	11.00	40	4.40	
			Total ...	$14.20	Cost $14.28

F. O. B. Chicago is assumed to be a 10-cent rate from mill.

In comparing these figures with prices of any one operation it must be borne in mind that the most variable factor in the whole dis-

cussion is the quality of the timber. The hardwoods vary in relative proportion in character and in the uses for which they are best fitted—in different parts of the territory covered. This is of itself an interesting study and this is true to a lesser degree of hemlock. These variations in quality affect costs and values, but the figures I have presented represent a fair average in each kind of wood.

If lumber is being sold quite generally at prices averaging from $1 to $3 below these costs, as reported sales would indicate, it seems to me that every manufacturer of lumber in Wisconsin and Upper Michigan should set his bookkeeper and sales manager figuring on the problem.

How much can the costs be cut by greater efficiency in the various departments? How can the production be curtailed? How can the demand for lumber be developed?

Causes of Trouble with Edger Saws

One time we shipped six 20-in. solid saws, 9-gage, with thirty teeth. By the time the bill was due we got a report that the saws were not satisfactory and that they were subject to our order unless we made hem run right. We sent a man to look them over, and cautioned him about seeing that the rollers and everything were in line. He found the saws alright and properly fitted, but the edger made crooked lumber, which was not the fault of the saws. But as everything, down to separation of man and wife, is put on a saw, we had to defend ourselves as best we could.

On going to the mill I found, as they stated, the edger was making crooked boards, while some were straight. I watched that machine for a half day before I could detect the trouble—and when I found what I thought was the trouble, it was not. The upper rollers were divided and were driven by a chain. The centre boxes were worn and allowed one end to run a little ahead of the other, but when wide boards were run, so that both rollers took it, the lumber was straight. At noon I had liners removed and rollers set perfectly parallel with the lower rollers, and I was sure of straight lumber, but there was the same trouble.

I inquired of the edgerman how the old saws ran, and he said they ran much better. I examined them, found them of a lighter gage, in good shape, but worn too small. The superintendent said the old saws did alright, and threatened to take ours off if I could not make them go, as the machine was O. K., and it looked like his contention was good.

When night came I carefully examined the rollers; they were in line with the mandrel. I noticed that the front feed roll was of the sectional kind, built of spurs or teeth. These teeth were badly worn; besides, the roller calipered ¼-in. smaller where most of the lumber was fed. This settled it with me. I explained it to the superintendent, but to no avail. I told him to change the spurs, the rollers having a nut on one end for the purpose of removing the worn ones and placing them at either end, or distributing them so as to make the roller same size where the most work was done.

He insisted on taking our saws off. I told him alright, but I would stay and see if the old saws made straight lumber. They did not, but, strange to say, they did a little better than the new saws. They were 10-gage, 36-tooth, spring-set, with a nice tooth on them. Our saws were 30-tooth, with a full-swaged tooth. I reasoned it out that the spring-set tooth had less resistance, so the lumber went a little better, but not satisfactorily.

Up to the time the new saws were ordered there was no complaint, though occasionally crooked boards came through. I proposed the next night to change the spurs on the roller, agreeing to do this on my own time and to pay the helper, with the understanding if the saws made one crooked board in the next half day. I was the loser; otherwise my time and expenses were to be paid, and the saws paid for, too. There was the whole trouble. Not a crooked board went through that machine. The superintendent was converted. He not only paid for the edger saws, my time and expenses, but gave me an order for two large circulars.

My advice to edgermen is to look out for worn front rollers. They not only get smaller where the most work is done, but they get dull, allowing the larger or sharper part to pull the board around.

In another case we almost lost out, when the fault was in no way in the saws. All operators know that smaller saws of same gage run better. In this instance the saws were worn down to 14-in. A change in management demanded more lumber, and it was decided to make all the 3 and 4-in. stuff from rough logs on the edger. The new company was to furnish lights for the town, and as this necessitated more fuel, a little waste from the edger was thus consumed.

We shipped them eight 24-in. solid saws, 7-gage, heavy enough for any work. Saws had thirty-six teeth and were spring-set. The edger was an old, heavy, rigid machine, and saws shifted from a yoke, and not by a guide. The collars were badly worn, as well as the babbitt in the yokes. The new saws ran very well on certain stuff, and again there would be ½-in. to 1-in. difference in the lumber while edging thin stuff.

We sent a man over to locate the trouble, he being a good mechanic and a close observer. He found that when making 4 x 4 or 3 x 4 there would be so much spreading of the saws as to ruin half the lumber. The foreman, as usual, put it on the saws, stating the old saws did alright. He gave our man the noon hour to fix the saws, saying if they did not run he could take them back, as he had prices and "guarantees" from others.

The loose collars and yokes showed that when saws were set on 4-in. the backs of two saws could be closed to 3¾, while the front measured 4¼-in. The foreman contended that the saws ought to run straight, and we agreed on that point; but suppose one saw is just "skimming" the side of a cant, would not the saws spread The saws were taken off, found alright, given a little more set, but to no avail. On straight-grain stuff, free from knots, there was no trouble, but, as stated, the scantling and studding were made from the rough, small crooked logs.

At night our man took the saws off, put on the old ones, and the lumber was better. They would not take over 3-in., so the 4 x 4 had to be made on the bad saw, with quite a loss of time. The foreman's argument held good, and when a man contends for his point he doesn't see defects. The company ordered new saws and advised it was returning ours by freight.

I took the next train, with 50-lbs. of high-grade metal in my grip. When I got there our saws, sure enough, were boxed and a 'phone order sent in for a new set of another make. After a straight talk with the foreman I got two 24-in. sticks and drove a finishing nail in the centre of each. I showed him that 7-in. from centre there was a little spread, but asked him how be could expect a saw with ¼-in. wabble or side-play, to not be influenced. These saws should have had guides.

I had my plan arranged to babbit the six yokes that night, knowing that it would be only temporary, as the collars were equally loose on the shaft. The foreman contended that babbitt would not stay; in a few hours it would cut out. He was right—for the kind of metal used, and the way they were babbitted. In the bottom of the yoke was an oil cellar, but in pouring, no attention was paid to this and the cellar was filled with metal.

I burned each yoke clean, protected the oil cellar, put in a wool felt wick (something they had not seen), and, after giving plenty of relief, I replaced our saws. The edgerman, who was my helper, said: "Boss, there's gwine to be fun wid all dem yokes; dey will burn out, or cotch fire." His previous experiences confirmed his belief. Cheap metal had been used, and when the oil chamber was taken care of, there was no resilient waste or wick used to convey the oil to the yoke. The grooves were badly worn, and not true, which was very hard on the metal.

As they were rushed on their 4 x 4 stuff, I told the foreman to send it all to the edger. He tried to down the saws, but to no avail. I saw some 6 x 6 on the board, and asked him to pass along a few 6-in. cants. The edger had a variable feed and took them alright. The foreman was pleased and asked for my bill. I figured it up, got my check, had their good will, and continued to get their future business. The foreman countermanded the other order, though the firm tried to hold them to it. I knew the result of a short delay, so that night's work won.—The Woodworker.

Fassett Company's Mill Running Continuously

In the Ottawa correspondence of the Canada Lumberman of November 15th, a report was published to the effect that the low water in the Ottawa River had caused all the mills, with the exception of the W. C. Edwards & Company's mill, to close down. This was unfortunately an error. The Fassett Lumber Company, Limited, Fassett, P.Q., advise us that they started running their mill on January 1st. It has been operated continuously since that time and the company are in hopes of keeping it running right along.

Does Away with Timber Underweights

The Canadian Pacific Railroad has announced a new regulation relative to the shipping of long-sawn timbers requiring two or more cars, which is a radical departure from the old rules and the rules generally in effect on railroads in the United States. The new rule provides that the weight on long-sawn timbers requiring two or more cars will be on the basis of 3.2 pounds per foot, with a minimum of 33,000 pounds for each car used. This regulation becomes effective December 1st and will apply from British Columbia points routing via the C. P. R. to points in Eastern Canada, namely, Ontario, Quebec, Nova Scotia and New Brunswick. Heretofore, and in the United States, the railroads endeavored to actually weigh all such shipments. The new rule will do away with all underweights that might possibly be obtained on shipments of long timber requiring two or more cars.

Steel Mine Props May be Used in England

A cable from London, Eng., under recent date, says: Apropos of the recent enquiry into the ability of Canada to supply timber props for mines, in which matter no decision has yet been reached by the commissioners who visited Canada and Newfoundland, it is learned that, owing to the continued scarcity, the mine owners are considering the advisability of replacing the timber with steel props. The first cost of steel props would be greater, but it is reported that they would last considerably longer. The Board of Trade states that steel props are already largely used in the United States, where their cost and efficiency have both proved satisfactory.

Death of Mr. Thomas D. Adams

Mr. Thomas D. Adams, one of the best known lumbermen in New Brunswick for many years, died on November 15th at his home in Bathurst, N.B. Mr. Adams has been a prominent Bathurst citizen for many years and was formerly president of the Adams-Burns Company, which was, until a few years ago, one of the largest lumber concerns in the province. Mr. Adams had been in poor health for the last year and the end came suddenly. Mr. Adams was born in Douglastown, N.B., 71 years ago. When a young man, he removed to New York, where he was remarkably successful. He went to Bathurst, N.B., about 20 years ago and took over the business of the St. Lawrence Lumber Company under the name of the Adams-Burns Company.

Vancouver Reports Cross Tie Enquiries

A report from Vancouver, B.C., states that inquiries for cross ties are now being put out by several large railway companies in Britain and quotations for supplies are now being obtained from British Columbia and other parts of Canada. Hemlock lath are another item that will occupy attention of manufacturers at Vancouver. Large quantities of these are used in Europe, but the source of supply has been temporarily shut off. Hemlock is not much used on the Coast, but if the demand keeps up it will soon be able to command a price beyond what it now brings.

Ontario Limit Changes Hands

It is interesting to note that some prominent lumber manufacturers in Ontario still have plenty of faith in the value of standing timber. Several sales have recently been put through by the Ontario Government which brought fairly satisfactory prices and have already been reported in these columns. A private sale, which was recently completed, resulted in the transfer of berth 167 in the district north of Blind River, from the Wells Lumber Company of Menominee, Mich., to Mr. Manley Chew, of Midland, Ont. We understand that the property changed hands at a very respectable price.

New Brunswick Stocks Going to England

One of the most prominent New Brunswick lumber manufacturers in a letter to the Canada Lumberman under date of November 6th, says:—"Most of our sales to the Ontario market have been scantling and boards, but with the high price that is now being paid for deals in the English market, the price of scantling and boards has come up relatively, so that they are now worth more money in England than in Ontario, even at the best prices obtainable last year. . . . It now looks as if everything the east can manufacture will go readily to the English market."

Dixon's Boiler Graphite

The accompanying illustration represents a barrel of Dixon's Boiler Graphite in the form of a mailing card, which the Joseph Dixon Crucible Company of Jersey City, N.J., is using to introduce this product to engineers and others interested in cleaner boilers. The card is printed in two colors and on the inside calls attention to the

fact that for nearly four score and ten years, the company has had at its command, all forms and grades of graphite and therefore has no incentive to use or recommend other than the correct grade of Dixon's Boiler Graphite. D. B. G., they say, will reduce fuel consumption, prevent the hardening of scale, give to the surface of the boilers, a smooth polish, prevent pitting and make the removal of scale easy by a gentle, mechanical action. The reverse fold of the card forms a return card bearing an invitation to write for the Dixon booklet "Graphite For The Boiler."

Toronto Board of Trade New Quarters

Mr. W. P. Gundy, president of the Toronto Board of Trade reports that the Board expects to get into its new quarters on the 19th and 20th floors of the Royal Bank Building, at the corner of King and Yonge Sreets, about December 10th. A great many Toronto lumbermen have already joined the Board and the prospects for organizing an influential lumbermen's section of the Board are very promising. This lumbermen's section will be the outcome of the movement for the organization of a Toronto Lumbermen's Club which was commenced last spring and made good progress.

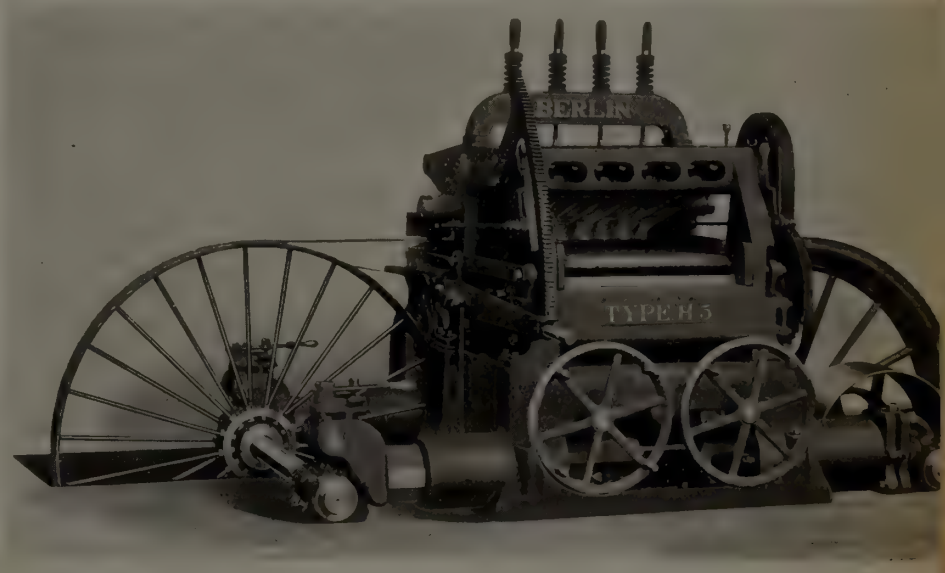
The steamer L. E. Hines, en route from John's Island, Georgian Bay, to Tonawanda, N.Y., with a cargo of white pine lumber, reached Alpena, Mich., on November 13th after one of the worst trips in the experience of the captain. The barge Ashland in tow of the L. E. Hines lost its deck load consisting of 500,000 feet of lumber. The steamer and barge ran into a blinding snowstorm and blizzard which tore away the masts and rigging and swept the deck load of lumber overboard.

Better Utilization Possible With New Slab Resaw

Lumbermen and woodworkers in general will be much interested in the new slab band resaw shown in the accompanying illustration. This is the latest production of the engineering staff of the Berlin Machine Works, Limited, Hamilton, Ont., and represents in its design and construction the experience gained by this concern during its many years as builders of band sawing machinery.

This new unit is designed to assist in the manufacture of lumber, to receive slabs or flitches and convert them into marketable lumber at a low cost. In every detail the resaw is simple in design and operation and sturdily constructed. Realizing the great advantage of a short, stiff saw on a resaw of this type, the designers of the machine have brought the wheels very close together. The saw cuts on the top tangent and maintains a fixed position. The wheels are 64 inches in diameter, and are designed to receive 8-inch blades.

As a design feature the use of an endless traveling bed in a resaw of this type is not a new departure, but the bed of this new resaw differs somewhat from the conventional design inasmuch as it com-



New Horizontal Slab Resaw, made by the Berlin Machine Works, Hamilton Ont.

bines simplicity, strength and light weight. Even under the hardest service, its builders claim, it will show very little wear, as the slats are made of steel and slide on a broad machined table, or way.

The bed is adjustable and may be quickly placed in position for cutting different thicknesses of material. A counter-balanced lever, providing a leverage of 12 to 1, makes this adjustment easy. The extreme maximum position of the bed below the saw is 4½ inches.

The overhead spur-toothed rolls are divided into four separate feeding units, each pivoting independently. The rolls will adjust themselves automatically to uneven surfaces, and where the slabs to be resawed are sufficiently narrow to permit, two or more may be resawed at once, thereby greatly adding to the machine's capacity.

The rolls will rise 8 inches above the saw, and this, together with the 4½ inch adjustment of the bed below the saw, and the 28-inch width of the table, provide ample capacity for handling any slabs the average sawmill will be likely to produce.

The resaw will operate on flitches as well as on slabs. All that it requires of material delivered to it is one sawed surface. Four rates of feed are provided, from 50 to 150 feet per minute.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Lumber Wanted

Hemlock running chiefly 14 ft. and 16 ft. lengths, 1-in. Spruce, Basswood, Birch; also Cedar Posts. Send detailed list giving lowest wholesale prices. Address Box 85, Canada Lumberman, Toronto. 21-24

Wanted

Several car loads of 2-in., 3-in. and 4-in. Birch C. & B., dry, for immediate delivery. Also 1-in. rull basswood. Box 106, Canada Lumberman, Toronto. 23

CRATING

We invite correspondence from manufacturers of spruce and softwood crating stock in Canada and the United States for the New England market. Let us know prices of ½-in. ⅝-in. and ¾-in. stock in first letter; cash business, and plenty of it. Box 91, Canada Lumberman, Toronto. 23

Wanted to Buy

We are in the market for the following good Merchantable Spruce:

100,000 ft. 2-in. x 6-in.
100,000 ft. 2-in. x 8-in.
50,000 ft. 3-in. x 9-in.
50,000 ft. 3-in. x 8-in.
50,000 ft. 2½-in. x 7-in.
25,000 ft. 2½-in. x 6-in.

all 10 ft. and up long. Terms: 75 per cent. cash against B/L. Balance on arrival and inspection. Shipment to be immediately. State price f.o.b. shipping point. Write P. O. Box No. 1595, Montreal.

For Sale-Lumber

For Sale

400 Spruce Spiles, 60 ft. long, 7 in. tops. Also any quantity Spiles 35 to 50 ft. long. Prompt shipment.

The Northern Lumber Mills, Limited,
21-t.f. North Cobalt, Ont.

Dimension Timbers

50 pieces Red Pine, 6 x 10 x 18, $30.00.
20 pieces Red Pine, 8 x 10 x 18, $30.00.
10 pieces Red Pine, 8 x 12 x 20, $32.00.
15 pieces Red Pine, 10 x 12 x 16, $32.00.
30 pieces Cedar, 8 x 8 x 12, $19.00.
30 pieces Cedar, 9 x 9 x 12, $19.00.
20 pieces Cedar, 10 x 10 x 12, $20.00.

Send for full list. Spruce and Yellow Pine also.

South Shore Lumber Company, Limited,
21-24 St. Lambert, P.Q.

For Sale—White Pine Bevel Siding

Either in Idaho White Pine, Silver White Pine or Michigan White Pine. All grades at prices so low that you will be sure to buy. Write us.

American Lumber and Mfg. Company,
22-1 Pittsburgh, Pa.

Wanted to Sell

One to five million feet of 8 x 8's to 24 x 24's, 12 ft. to 18 ft. long, No. 1 common pine timbers, rough or dressed. To be shipped as fast as cut, approximately four hundred per month.

PERRY-FRASER LUMBER CO., INC.,
23-2 Noxapater, Miss., U.S.A.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale-Machinery

For Sale

28 36-ft. 600,000 lbs. flat cars.
1 55 ton Locomotive.
1 35 ton Dinkey.
15 25 ton Dinkies.

In first class order, for immediate delivery.

W. FRASER,
21-24 83 Craig St. West, Montreal, Que.

WOODWORKING MACHINERY FOR SALE: 1 20-in. American wood scraper; 1 No. 502 Canada Machinery Corporation tenoner; 1 No. 619 Canada Machinery Corporation dimension saw table; 1 24-in. planer and matcher; 1 18-in. Little Giant planer, matcher and moulder; two 2 spindle wood shapers; 1 32-in. pedestal band saw; 1 32-in. disc sander with boring attachment; 1 M. 190 Cowan hollow chisel mortiser. H. W. Petrie, Limited, Toronto, Ont.

For Sale

Saw mill, 8 ft. Allis Band, 6 ft. Allis Resaw, Clark Carriage, Prescott Set. 12 in. Steam Feed, Edger, Boilers, Engines, Dynamo. Complete mill ready to run.

14 Russell Log Cars, 60,000 capacity, 26-in. wheels, air brakes, 12-ft. bolsters.

Eight miles of 45-lb. Steel Relaying Rails, excellent condition. Wheel Press, Lathe, Planer, Crucible for Brass, Power Drill.

All of the above equipment is at Marlinton, W.Va.

Campbell Lumber Company,
20-23 Marlinton, W. Va., U.S.A.

Rebuilt Veneer Machines

We have the following rebuilt Coe veneer lathes and clippers ready for immediate shipment:

Lathe, 50-in. swing, 88-in. knife, 6-in. spindles.
Lathe, 50-in. swing, 64-in. knife, 6-in. spindles.
Lathe, 50-in. swing, 64-in. knife, 5-in. spindles.
Lathe, 42-in. swing, 64-in. knife, 3⅞-in. spindles.
Lathe, 42-in. swing, 52-in. knife, 5-in. spindles.
100-in. power clipper.
88-in. power clipper.
54-in. foot power clipper.

These machines are decided bargains and carry the same guarantee as we give our new ones. Prices on application.

THE COE MANUFACTURING COMPANY,
23t.f. Painesville, Ohio.

Special Woodstock Machines

Latest Types—Like New—Guaranteed. Some examples:

2—12-in. Defiance Patent Automatic Benders.
1—No. 2 Defiance Automatic Rim Strip Equalizer.
1—42-in. Defiance Combined Handle and Spoke Lathe.
2—48-in. Defiance Neckyoke and Singletree Lathes.
3—32-in. Defiance Automatic Spoke Lathes.
2—48-in. Wapakoneta Automatic Spoke Lathes.
2—36-in. Fay & Egan Automatic Spoke Lathes.
1—No. 1 Defiance 18-in. Belt Sander.
1—Defiance Auto Spoke Throat Polisher.
1—18-in. Empire Belt Sander.
5—Sinker-Davis Hoosier Self-feed Rip Saws.
1—No. 110 Fay & Egan Self-feed Rip Saw.
1—No. 2 American Self-feed Rip Saw.
1—30" Whitney Double Surfacer.
1—24-in. Fay & Egan No. 140 Double Surfacer.

Complete list the seventy odd machines ready.

WAYNE MACHINERY CO.,
Fort Wayne, Ind., U. S. A.

We've seven hundred machines in stock at Fort Wayne. Our Wayne list mailed to anyone interested.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra.
Minimum charge 25 cents

WANTED—Position as engineer. Can handle A.C. work. References. R. E. Keech, 412 Pavone Street, Benton Harbor, Mich., U.S.A. 22-1

Position wanted as manager of retail woodworking business. Thoroughly experienced in lumber factory and office routine. Expert organizer and capable of producing maximum results. Twenty years with one large Ontario company. At present engaged. Box 88, Canada Lumberman, Toronto. 21-23

POSITION WANTED by stenographer and bookkeeper. Young man, stenographer and bookkeeper, desires position with lumber company, with a chance of advancement. One year's business experience, and best of references. Address Lock Box 42, Highland Park Station, Des Moines, Iowa, U.S.A. 22-1

Planing mill man expert in sales, advertising and estimates, with exceptional record for increased business and profits, will be open for new position January 1st. Will guarantee results for 1915 and will make pay contingent upon resutls. Apply Box 108, Canada Lumberman & Woodworker, Toronto. 23-2

WANTED—Position by young married man who has a general knowledge of the lumber business and who is particularly adapted for the sash and door business. Has had practically four years' experience as buyer. Willing to go almost anywhere and to consider any proposition. Would go to lumber camp or work in mill. Firms with interests in South America, desiring the services of a general man, please consider this. Box 100, Canada Lumberman, Toronto. 22-24

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Practical man to act as superintendent of new plant about to manufacture box shooks. Must have thorough knowledge of the business. Apply Box 109, Canada Lumberman & Woodworker, Toronto. 23t.f.

Hardwood Salesman Wanted

Wanted a high grade hardwood salesman who is thoroughly acquainted with the furniture, piano and interior finish trade of Canada. We can offer such a man an exclusive territory in a well established line. Send full particulars and references in first letter or application will not be considered. Address Box 99, Canada Lumberman, 347 Adelande Street West, Toronto, Ont. 22-23

Business Chances

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

In the Supreme Court of Ontario

In the Matter of The Winding-Up Act, being Chapter 144 fo the Revised Statutes of Canada and Amending Acts.

And in the Matter of the Dominion Lumber Company, Limited.

Judicial Sale by Public Auction of valuable timber lands, limits and mills situate in the Province of Quebec.

Notice is hereby given that pursuant to the Winding-Up Order made in this matter and bearing date the 9th day of June, 1914, there will be offered for sale with the approbation of Geo. O. Alcorn, Master in Ordinary of the said Court and with the concurrence of the Royal Trust Company, Trustee for bondholders, by Public Auction by Fraser Bros., Auctioneers, at No. 453 St. James Street, Montreal, Quebec, at the hour of 10.30 o'clock in the forenoon on the 30th day of January, A.D. 1915, the following lands and premises and assets in one parcel:—

A.—In the seigniory of Ste. Anne des Monts, in the County of Gaspe, in the Province of Quebec, 1,000 acres more or less of timber lands, together with a duly equipped lumber and shingle mill, having a capacity of 25,000 feet of lumber and 125,000 to 150,000 pieces of shingles every ten hours, also dwellings, storehouses, repair shops, etc., also 289 square miles timber limits in said county held under Government license and numbered 22 to 29, estimated to contain over 350 million feet of saw logs, principally fir, spruce and cedar, and 595,000 cords of spool and pulp wood. Also logs in river estimated at 1,000,000 feet board measure.

B.—Near La Grande Vallee des Monts, in the County of Gaspe, in the Province of Quebec, 54 square miles of timber lands and 100 square miles licensed timber limits (held under Government license and numbered 30, 34 and 35) reported to contain 100 million feet of saw logs and 245,000 cords pulp and spool wood, together with new lumber mill fully equipped and having a capacity of 50,000 to 75,000 feet of lumber every ten hours, also a mill for sawing shingles and railway ties, with a capacity of 125,000 to 150,000 shingles every ten hours and all necessary shanty plant, etc.

The property will be offered for sale subject to a reserved bid fixed by the said Master in Ordinary.

Terms of Sale.—Accepted cheque for $10,000 payable to the Liquidators to be deposited with the Auctioneer by each bidder when making bid. Twenty-five per cent. of purchase price to be paid in cash and balance shall be paid in three equal annual instalments and shall bear interest at the rate of seven per centum per annum, such instalments to be secured to the satisfaction of the Liquidators.

The Purchaser may at his option pay the whole purchase money in cash.

The terms and conditions of sale in all other respects are the standing conditions of sale of the Court so far as applicable.

For further particulars apply to Archibald W. Stevenson, Eastern Townships Bank Building, Montreal, Quebec, Charles A. Millener, Deseronto, Ontario, Frank Denton, K.C., 20 King Street East, Toronto. Liquidators or to Masten, Starr and Spence, 58 Canada Life Building, Toronto, Canada.

Dated at Toronto this 14th day of November, A.D. 1914.

GEO. O. ALCORN,
23-2 Master in Ordinary.

Miscellaneous

Wanted

Second-hand medium size log haul up chain and refuse carrier. Box 101, Canada Lumberman, Toronto. 22-23

Electric Lighting Plant

wanted, without power, direct current, capable of supplying 250 to 300 16 c.p. lamps. Must be in first class condition. Name lowest cash price. Correspond with Clarke Bros., Bear River, N.S. 21-24

Ties and Pulpwood For Sale

Advertiser open to take orders for delivery of railway ties and pulpwood in any quantities large or small, to be delivered rail off vessel, upper lake ports. Apply Box 110, Canada Lumberman & Woodworker, Toronto. 23t.f.

Sawing Contract Wanted

Want to secure contract for the sawing of 1,000,000 to 5,000,000 feet of logs. Have No. 1 portable sawmill, fully equipped. Location immaterial.

HUGH BAIRD & COMPANY,
22-1 Markdale, Ont.

Sales Engineers Wanted

A large firm specializing in the manufacture of motors of all classes desires to secure sales engineers in various parts of Canada. Firms who can carry a stock of motors are preferred. Write stating the territory that you can cover. Box 96, Canada Lumberman, Toronto. 21-24

For Sale

Fifty good lumber horses from 1400 to 1700 pounds. Also harness, sleighs, water tanks, snow plows, blankets, chains, camp stoves and all camp supplies. Can all be seen at Berriedale, near Burks Falls, Ont.

Highland Lumber Company, Ltd.,
20-23 Berriedale, Ont.

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Sales Agents Wanted

Large firm manufacturing a complete line of electric centrifugal pumps, automatic electric compression water systems, electrically-driven multi-stage turbine pumps, electrically-driven double acting pumps and a number of other lines, wants sales agents for various parts of Canada. Write, stating what territory you can handle, to Box 94, Canada Lumberman, Toronto. 21-23

Rossed Pulp Wood

I will close a contract immediately for machine Rossed Pulp Wood, 24-in. and 48-in. long, quotations f.o.b. Cochrane, Ont., or at place of delivery. I have the control of a large quantity of pulp wood yearly.

I also have for sale 50,000 ft. of 1-in. dry White Birch.

L. BOIVIN,
23-2 Box 46, Cochrane, Ont.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Agents Wanted

Large firm making low voltage transformers and electrical measuring instruments wants sales agents for Canada. These transformers are for sign lighting, bell ringing and toy requirements. The electrical measuring instruments include a complete line of switchboard and portable ammeters and voltmeters. All agents to work on a commission basis. Write, stating what territory you can handle, to Box 93, Canada Lumberman, Toronto. 21-23

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

BAHAMA ISLANDS

Timber Lands

The Crown is prepared to issue a license for yellow pine lumbering operations on Cocoa Plum Creek Section, a tract containing 13,725 acres situate on the Northern part of the Island of Great Abaco. A considerable portion of this tract is covered with yellow pine timber.

The Crown has also for lease other and smaller tracts of pine land.

Parties interested are invited to apply for further information to The Colonial Secretary, Nassau, Bahamas, W. Indies. 23-24

The Belt as a Heater

I went into a factory the other day to look at some belts that I had been told were running remarkably well. I found the belt man and asked him to show me the belts, which he immediately did. They were certainly running nicely—nice and slack, no squealing from slip and as steady as a clock—and the belt man was justly proud of them.

But the most interesting thing of all was this man's method of preparing the treatment for his belts. He put it in a coffee pot and poured it on the belt hot, in a very fine stream, so that it would not lubricate the pulleys and permit slip and would penetrate into the belt. He says that it is sometimes just as well to apply the dressing with a brush, but it must always be in a hot state, so that it will penetrate properly and make the belt pliable.

Instead of heating the pot in the way that most men do, this fellow has an entirely original scheme, so far as I know. He just holds the bottom of the pot against a rapidly-moving belt, and in a very short time the dressing is sufficiently hot for application. This does away with bothering with heating devices, gas, blow torches, etc., and is very simple. The gentleman told me that necessity, "the mother of invention," gave him the idea one day when they were out of gas, gasoline, and even matches, and the belt needed dressing badly. Not such a bad scheme, is it? Perhaps it can be utilized for heating other little things as well as belt dressing—glue, for instance.—N. G. Near in the Wood-Worker.

Manufacture of Toys

It is popularly believed that nearly all wooden toys sold in America are manufactured in Europe; but this belief is erroneous, though many such toys come from across the sea. In the single state of Pennsylvania 6,421,500 feet of lumber are yearly made into toys, according to a recent report on the subject published by the Forestry Department of that state. Twelve kinds of wood are used. Basswood leads in quantity, and is followed in the order named by sugar maple, white pine, yellow poplar, beech, birch, chestnut, soft maple, ash, white oak, white elm, tupelo, red gum and spruce. Toy makers pay in that state $182,000 a year for wood. Spruce is the most expensive, and ash next, while beech at $18.41 a thousand feet is cheapest. The variety of toys manufactured may be judged by the following partial list by classes: Animals, made wholly of basswood; building blocks, white pine; boats, basswood and white pine; cannon and forts, basswood, beech and birch; chairs, beech, birch and maple; circus sets, various woods; dolls, basswood; furniture, various woods; games, ash, oak, poplar and basswood; Christmas tree holders, yellow poplar; pastry sets, elm and oak; baby play yards, oak; and the following: Shooting galleries, tricycle seats, stick horses, hoops, popguns, swings, baby walkers, rocking horses, wagons and autos, tops, wheelbarrows and xylophones.

Wooden Parts of Brushes

The manufacturers of brushes use wood for handles and backs, and they consume large quantities and it comes to the factories from all portions of this country and foreign lands. Some of this wood is employed because it is cheap; other for the reason that it is not damaged by frequent contact with water; and some is bought for its beauty, and very high prices are frequently paid for choice kinds. Some of the brush makers in Pennsylvania, for instance, pay thirty cents a foot for rosewood, while in New York three woods bought by brush makers cost $200 or more per thousand feet. New York consumes 1,562,000 feet of wood yearly for brushes, and Pennsylvania two and a-half times as much. The kinds of brushes made are very numerous, but the following partial list will show some of the most common: Those for scrubbing, creameries, breweries, sinks, dust pans, horses, feather dusters, windows, stoves, carpets, painting, whitewash, frescoing, clothes, hair, nail, blacking, roofing, spreading asphalt, cleaning streets, and many more.

Washing Sawlogs

The practice of log-washing originated with the use of ponds for storing logs and streams of water for bringing logs into the saw mill. Logs pulled directly from the water into the mill have some of the dirt and grit washed from them by their immersion, and the bark and dirt being saturated with water makes the logs easier to handle on the carriage, likewise easier to saw in that they do not dull the saw so readily.

Many of the large mills which use logs brought in by rail, appreciating the advantages of washing or saturating the logs with water, adopted the practice of spraying or splashing them as they are brought into the mills. Various devices are used for this purpose. A typical plan is that of piping water from the supply tank to a point along the incline of the haul-up from the ground to the mill, and arranging a discharge to splash or spray the logs as they pass along. Sometimes this is made strong enough in the water flow to splash and wash the logs as they pass along at their regulation gait. At other times, where a lighter spray is used, the haul-up man slows the movement of the log under the spray and gives it time for a thorough wetting.

This practice may be found in use among large mills handling both pine and hardwood. It is a practice that many of the smaller mills which use dry timber might well adopt, to make work easier for the sawing crew and also for the filer, because it is well known that it reduces the damage to saw teeth from dirt and grit in the logs.

CANADIAN OFFICE & SCHOOL FURNITURE CO. LIMITED
PRESTON ONT.
FINE BANK, OFFICE, COURT HOUSE & DRUG STORE FITTINGS
OFFICE, SCHOOL CHURCH & LODGE FURNITURE
SEND FOR CATALOGUE

WASTE ELIMINATION
IN LOGGING OPERATIONS
My reports show where the waste is, and how it may be eliminated.
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are prepared to examine and report on forest properties anywhere. Forest surveys, Logging maps, Timber estimates, Water Power, Water Storage, Topographical plans, Water supplies, Park Works, General plans for village sites and Private Estates. Railroad location and construction. Roads and Rivers improvements. Good information concerning Quebec Timber and Mining lands, cheerfully given.

RATS AND MICE
Eat the meat out of oats and corn and horses get the husk.

RATS ARE DISEASE CARRIERS: ALSO CAUSE FIRES. Device resets itself; always ready; catches daily. Made of galvanized iron; can't get out of order; cheese is used, doing away with poison; 12 rats caught one day in one catcher. One sent any place in U. S. upon receipt of $3. Catcher 10 in. high, for mice only, $1. On account of shipping charges being prepaid, remittance requested with order.

H. D. SWARTS
Inventor and Mfr., Scranton, Pa.

Review of Current Trade Conditions

Ontario

The usual quietness prevailing in the lumber trade during the autumn months was increased to such an extent by the trade disturbances resulting from the war, that the general industrial situation in Ontario is of as much interest to the lumber trade to-day as is the actual situation in the lumber business itself. The best feature of the present situation is that business men in general found out, after the readjustment which was necessary early in August, that a firm foundation prevailed in Ontario and in Canada pretty generally for trade activity, sufficient in fact, to overcome to a most encouraging extent the dislocation caused by the war. Although local markets have become depressed to some extent, resulting in a cessation of building operations and a reduction in the output of some of the large manufacturing concerns, other industries have become exceedingly active as the result of war office requirements and some large industries which reduced their staffs at first, or even closed down have again come into the field and are buying stocks of lumber.

There is no question that in large cities, the demand for lumber has fallen off greatly, but there is, even among retailers a feeling that next spring will be a good one, even if the war situation has not, by that time, cleared up. As to the smaller centres and the farming districts, it is the conviction of most business men in Ontario that there will be no decrease in the purchasing activity of the rural population. The official crop bulletin recently published by the Census Bureau shows an increase in the value of the Canadian root and fodder crop of $29,000,000 or 14 per cent. The grain crop figures have not yet been published, but it is certain that the returns to the farmers from this source will be as great as, if not greater than, in 1913. For these reasons it is pretty certain that trade in rural districts will be, at least fair, during the winter, and good during the spring.

In regard to the lumber situation in Ontario, there is little to be said. Quietness is the chief characteristic. Fortunately for all concerned, the stocks of lumber both in manufactuerrs' and wholesalers' hands are light. Retailers also are carrying only sufficient stock to meet their immediate requirements. The situation therefore, is safe from an economic point of view, and is one which will readily respond to improvement in the demand, whenever that comes about. Moreover there is good reason to believe that the result of the coming winter's operations will be a reduction in the output of lumber next summer. Some of the large companies in northern Ontario are taking out large quantities of logs this winter, as they are obliged to do so because of many trees having been injured or felled by fires and storms, which must be taken out to avoid loss. A few companies not so situated, are also operating extensively, feeling that they will do well next summer as they expect a good demand and higher prices. There are however, many others who, for one reason and another, will reduce their operations considerably, resulting, it is now believed, in an important reduction in the log output. This will apply both to the Ottawa Valley andt he Northern Ontario districts.

Wholesalers in Ontario are meeting with a fair demand for lumber, but all report that the trade is much quieter than usual at this time of year, and that the situation of retailers and large consumers is such that trade is likely to take quite a spurt at the first definite sign of more satisfactory industrial conditions. Some wholesalers are confident that this situation will develop by next spring if not before.

The lumber trade at Ottawa continues quiet, the chief event of interest to lumbermen being the recent action of the Fire Underwriters' Association, in insisting upon additional precautions in lumber plants, in the way of installing extra fire fighting appliances, employing watchmen, etc. The reduction of operations in the woods this year is congesting the labor market to some extent. There are hundreds of idle men in Ottawa who formerly found employment in the lumber camps.

Eastern Canada

The early arrival of cold weather and snow at Montreal has restricted building operations which were already greatly curtailed by the general business situation. A fair amount of business however, is reported by several wholesalers and there is a rather general feeling that, at the beginning of next season, trade will revive considerably. Shipments of spruce and birch to the Old Country continue on a small scale, but very little pine is going forward. Freight rates for lumber are high, the increase since the beginning of the season being from 33s. 9d. to 60s. and as high as 65s. per standard. The total exports from Montreal will show a large decrease this year. In the St. Maurice Valley district it is expected that the cut this season will be about the same as last season. Practically all the mills in the Three Rivers district are closed and there are still many logs in the rivers.

No important changes are reported from St. John, N.B. The local building situation is practically at a standstill, but the trade is no worse than it was at this time last year. Indications are that all low grade stocks of rough lumber and much of the merchantable rough stocks will be used up by next spring. There will be from 18,000,000 to 20,000,000 feet of logs carried over the winter at St. John for spring sawing, mostly long logs for American stocks. Prices for English deals continue very firm and the mills now operating at St. John are running on this stock. During the last three weeks freights have risen from 60s. to 65s. No sales for next season have been made for the north shore of New Brunswick, although one company is reported to have received an offer of $19.50 per thousand for the ordinary specification of deals. American prices show no change. Ordinary specifications at St. John have sold as low as $17 in New York during the last fortnight.

Continued improvement is reported in the demand for eastern spruce at Boston. Quotations are firmer, some of the larger mills quoting 50c. more for frames than a fortnight ago. The number of manufacturers, now sawing spruce, is reported to be considerably smaller than a month ago. The indications at New York are that higher prices may be expected for eastern spruce. Consignment shipments are fewer than usual. Heavy blocks of stock which formerly used to go to New York are now going into English deals. Hardwood quotations at Boston are firm, but the volume of trade is not large. Shingles at Boston are quiet, but steady. Choice makes of white cedar extra clears are still bringing $3,50. A few very good extras are offering at $3.40. Clears have lately been sold at $2.80 to $2.90 and second clears at $2.55 to $2.65. The call for red cedars is quiet. Some fancy brands are held at $3.65, but more orders are given at $3.40 to $3.45. Lath are selling rather well and there is a firmer tone to the market. Sales of 1⅝-in. were made at $4.10 and of 1½-in. at $3.75.

United States

Trade conditions are quite evidently returning gradually to normal in the United States, as the obstacles to business activity disappear. Credit is expanding steadily and it is expected that, by the beginning of the new year, general business will be moving along on a fairly active basis. The opening of the reserve banks on November 16th immediately caused an easier tone to develop in money rates. Interesting reports are being received of the resumption of operations at steel mills. Railway companies have been increasing their business and are soon expected to be making purchases on a large scale as many of them have neglected their lines since the business depression commenced. The sucessful organization of the cotton pool plan is also an important factor in the approaching return of normal trade conditions. The relief afforded by this arrangement is certain to be beneficial, not only to the cotton industry, but to the whole southern business community. An important indication of the general trade situation in the United States is afforded by the fact that the payment of foreign obligations is no longer a matter for serious worry. The import excess of $20,000,000 during August has been changed to an export excess of approximately $60,000,000 in October. Wood exports have been unprecedented in amount and at good prices. Mills and factories on many sides are busy and running full or overtime. The number of unemployed is decreasing. Everything in fact points to steady improvement in the industrial situation.

The demand for northern pine at Chicago is very light and prices are steady. At Buffalo, the northern pine trade has not improved, although a few large export orders have been filled. Building operations are very light and the factory demand is small. Prices are not quite so firm as they were a short time ago, but when stock is actually needed a fair price is paid. Trade in northern pine at North Tonawanda is more active, with orders coming in from New York and Pennsylvania retailers. The open fall weather has assisted considerably by making it possible to continue operations. Prices are steady.

Great Britain

A fairly brisk business is reported in the spot market at London. Autumn shipments are reaching the docks in considerable quantities. At latest reports, vessels were being held up in the river to be berthed at the docks. The large deliveries during the past few weeks however, have cleared a good deal of space. There is no downward tendency about values. Common stocks are particularly firm. Deliveries at London docks for the week ending October 31st amounted to 11,458

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

We also make a specialty of heavy timbers cut to order any length up to 60 feet from Pine or B. C. Fir.

"Rush Orders Rushed"

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. Bole, Pres. F. H. Goff, Vice-Pres. E. C. Barre, Gen. Mgr. W. A. Saurwein, Ass't. Mgr.

loads, as compared with 7,429 loads in the corresponding week of 1913. At Foy, Morgan & Company's recent auction sale 3 x 9 in. u/s St. John spruce were sold at £12 10s., 3 x 7 and 6 in. ditto at £11 10s., and 3 x 6 in. 3rd Quebec spruce at £12 10s. 2 x 9 in. u/s Quebec spruce brought £13 and 2 x 7 ditto £11 15s. Marked decreases are reported in imports of British Columbia and Oregon pine at Liverpool. The consumption of all kinds of timber and lumber at Liverpool has been below normal. The principal demand has been for spruce, and Oregon and pitch pine. Stocks, on the whole, are about normal. Trade has been settling down to a steady basis and there is a noticeable improvement in the tone of the market. Drainage of tonnage for the movement of troops has had a serious effect upon the timber trade, resulting in higher prices for deals at Liverpool. Spruce deals continue in good demand and prices are advancing rapidly, largely on account of the advance in freights. It is almost impossible to give any c.i.f. prices for spruce deals for this reason. They may advance from day to day on account of the shortage of vessels. The stock in thet wo ports on the Mersey at the end of October was 14,080 standards less than at the corresponding date in 1913.

Trade is a little quieter at Manchester. Stocks of spruce deals are light and prices are advancing. With 7 x 3 in. as a base the present value is near £11 15s. ex quay, and there is not much fear of Riga competition for some time. Recent reports state that the above prices may easily advance 10s. per standard. The stock of red and white deals is only 5,010 standards and prices are said to be prohibitive.

No noticeable change is reported in the trade situation at Glasgow. The volume of business continues of a moderate scale. Stocks on consignment are growing smaler steadily. A limited business is going on in Quebec pine, deals and sidings. Much of the movement is in the lower grades. Values however, continue firm. Birch logs are scarce and in good demand.

Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

St. John Trade Handicapped by Lack of Vessels

St. John, N.B., November 22 (Special to the Canada Lumberman): The last two weeks have seen no changes in the lumber industry at this port. No new sales for 1915 have taken place. Prices remain about the same as at last report, with stocks not very heavy. The local building trade is about at a standstill, only such work as was started, is being finished. No new work of any importance is being started, but the trade is as good as can be expected at this time of year, and is no worse than at the same time last year, even though the war is going on. Probably all low grades of rough lumber and also much of the rough merchantable stocks will be used up by spring, especially if the steamers which are to transport horses and troops to the war zone are to be fitted up here, as they use large quantities of lumber to each boat. This will provide much work for the workmen at this port and therefore help to offset the hard times which would otherwise be much felt by the laboring men.

The mills which were reported in operation on the first of month are still going and will probably continue on to about December 15th, that is if the weather does not get too cold.

Probably about 18 to 20 millions of logs will be wintered over at St. John for spring sawing, but these are largely long logs for the American market. All the mills now running at St. John are sawing for the English deal market, prices for which remain very firm. The great trouble is in the high freights; and more than that, the scarcity of tonnage, five steamers having been taken by the Admiralty during the last few days. These five were under charter to come to St. John so it can be readily seen that it is impossible to place any confidence in published sailings, as, at the last moment they are being cancelled. Freights have risen in the last three weeks from 50 shillings to 65 shillings, and it is almost impossible to get vessels even at these prices. We understand that no sales for 1915 have yet been made from the north shore of New Brunswick although one company are said to have received an offer of $19.50 per M. for the ordinary specification of deals. No deals are for sale at St. John, with the exception of a few which are being sawn by American mills and are being sent forward to the English market on consignment. A good deal of the stock going from here is being sent to Glasgow, where the market demands longer lengths, Manchester taking shorter stocks.

Practically there has been no rise in the prices for American stock. Theoretically there has been, but if a person has the real goods to sell and asks a price which he can get a profit at, he will find it almost impossible to get a buyer at any price. An advance has been taking place all season so far as the newspapers are concerned, but where it is we fail to see. Sales of ordinary specifications have netted as low as $17.00 in New York during the last two weeks.

Laths are selling as low as $3.00 at New York and seem to be weakening every month, but now about all stocks have been shipped and it is hoped to see a revival in this line of stock. This leaves from $1.90 to $2.00 for sellers on wharves at St. John.

Shingles still continue very weak, although papers claim otherwise, but persons having a heavy quantity to dispose of find it hard to get a profitable price for the fancy gardes.

Ottawa Lumbermen Affected by Insurance Situation

Ottawa, November 23 (Special to the Canada Lumberman): With trade in the district somewhat dull just now, lumbermen are taking considerable interest in the question of fire protectioan. The Fire Underwriters' Association has compelled them to take additional precautions in their plants by putting in extra fire-fighting appliances, employing more watchmen and so on. The surtax of 50 per cent. put on by the insurance companies two weeks ago is still in effect on all new business written in Ottawa, and it is not likely to be lifted until the three new fire engines the city has ordered are delivered and put into service, the four extra pumps at the Lemieux Island pumping station installed, and the 42-inch intake pipe put into commission. Several of the insurance agents in the city have expressed themselves in the newspapers as being of the opinion that the surtax is unreasonable. Tenders have been invited by the city for the pumps, and it has been practically decided by the civic officials not to repair the 42-inch intake pipe as at first proposed, but to put it into use forthwith as its condition will warrant this.

The curtailment of operations in the wods this year, owing to the war, has naturally caused the labor market to be flooded. Hundreds of men, who in ordinary times find employment in the lumber camps during the winter, are idle in the city and the civic officials are finding it a difficult problem to find work for all those who register at the free employment bureau, which was opened a few days ago at the city hall.

Mr. John Gillies, of Braeside, Ont., one of the best known lumbermen in the Ottawa Valley, died in Pembroke last week. Deceased, who was a member of the firm of Gillies Bros., and son of the late Mr. John Gillies, of Carleton Place, founder of the firm, was taken ill while on his way home from a trip to Northern Ontario. He was taken to the General Hospital in Pembroke where he died.

Montreal Market Continues Quiet

Montreal, November 23 (Special to the Canada Lumberman): The early appearance of winter conditions is adversely affecting the lumber market. Last year the season was open until near Christmas, but now we are faced with heavy falls of snow, which has restricted building operations, already seriously curtailed, and added another handicap to the lumber trade. Some wholesalers state that they have done a fair amount of business considering the general situation, and although no large orders can be expected during the winter months, there is a hopeful feeling that at the commencement of next season there will be a welcome revival of trade. The building permits continue to decrease, and those issued are, as a rule, for unimportant structures.

There is still only a limited amount of steamer room for the shipment of lumber to the United Kingdom. Small amounts of spruce and birch have been sent, but hardly a stick of pine, the call on the other side being mainly for spruce. The vessels continue to load with grain and foodstuffs. Freight rates for lumber are very stiff, having advanced since the beginning of the season from 33s. 9d. to 60s.-65s. per standard. This has been one of the worst seasons for many years for firms doing an overseas business, and a marked diminution in the exports will be seen when the total figures for the season are available.

All mills in the Three Rivers district are now closed down. A large number of logs are still in the rivers, the lowness of the waters in the St. Maurice and its tributaries having prevented these from coming down during the early part of the season. It is expected that the cut in the St. Maurice Valley district will be about the same as last season.

Almost without exception the pulp and paper mills are fairly occupied. There is a good demand for chemical pulps, prices for fine grades having advanced between $3 and $4 as compared with the period immediately preceding the war.

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EDGINGS

Ontario

The sawmill belonging to Arthur Moore at Falconburg, Ont., was recently destroyed by fire. The stock of lumber was saved.

The factory of the Classic Furniture Company, Stratford, Ont., was recently destroyed by fire, the loss on building, machinery and stock amounting to $30,000.

James Gilies, Preston, Ont., is contemplating the purchase of sash making machinery, as he intends to go into the manufacturing of sash, window frames and screens.

The James Smart Manufacturing Company, Brockville, Ont., report that the building for their new wood working plant is now all enclosed and the machinery is being installed.

The Berlin Branch of the Canadian Furniture Manufacturers, which was closed in June, has resumed operations with a large staff of men to work eight hours a day, five days a week. The surplus stock which was formerly on hand has been entirely disposed of.

The Parkhill Lumber & Manufacturing Company, Limited, have been incorporated under Ontario charter, with authorized capital of $30,000 and head office at Parkhill. The provisional directors are W. H. Mark, J. C. Mark, J. Schafer, J. Grieve and C. H. Curts.

John Carew's Sawmill at Lindsay, Ont., closed for the winter about the middle of November. The company has had a very successful year and has produced a large amount of lumber. The planing mill and box factory will be operated throughout the winter. They are at present running day and night and expect to be able to continue so for some time to come.

Eastern Canada

Laganiere & Frere, lumber manufacturers have been registered to carry on business at Grondines, P.Q.

The Irving property at Riversdale, N.S., has been purchased by Mr. H. H. Johnson, who is preparing to operate it.

The wodworking factory of the M. F. Scherman Lumber Company, Limited, at Somerset, P.E.I., has suffered a loss by fire which is partially covered by insurance.

G. A. Warman, Truro, N.S., who has purchased the Kempton, N.S., property of the Atlantic Lumber Company, is moving his mill to the property and putting forty men at work.

McCluskey & Powers, Limited, have been incorporated under New Brunswick charter with authorized capital of $40,000 and head office at Grand Falls, N.B. The objects of the incorporation include the carrying on of a general mercantile and lumber business.

The Sandwich Bay Pulp & Lumber Company, Limited, has been incorporated with head office at Montreal and authorized capital of $2,000,000. The incorporators include A. Bernier, L. Bernier, G. E. DeSeve and O. Beauchamp, all of Montreal. The objects of the company include purchasing or otherwise acquiring timberlands at Sandwich Bay, Labrador, Newfoundland or other timberlands, and to carry on the business of manufacturing and selling pulpwood and lumber.

Western Canada

The Leduc Lumber Company, Limited, has been incorporated with head office at Leduc, Alta., and authorized capital of $20,000.

Lumber Exporters, Limited, have been incorporated in British Columbia with authorized capital of $10,000 and head office at Vancouver, B.C.

D. H. Sears is contemplating the erection of a shingle mill at Port Albernie, B.C. He is also considering the opening up of logging camps. His present plan is to erect the shingle mill next spring.

The North Alberta Lumber Company, Edmonton, Alta., have about completed the building for their new sawmill and the machinery is now being installed.

The Seafield Lumber & Shingle Company, Limited, has been incorporated in British Columbia with authorized capital of $15,000 and head office at Nanaimo, B.C.

A company known as the Pacific Mills has been incorporated with authorized capital of $9,500,000 to take over the Ocean Falls Pulp and Paper Company, whose financial difficulties were promiennt several months ago. The English bondholders, led by Mr. Hamilton Benn, member of Parliament,, have consented to the new arrangement and it is expected that the plant will be reopened at once.

A new sawmill will be erected at Tobacco Plains, near Elko, B.C., by the Eureka Lumber Company. The cost of the plant will be $150,000 and it will be thoroughly modern in every respect. The company's plant was destroyed

by fire about two months ago. The new mill will be equipped with two band saws and a gang saw. Its total capacity will be 300,000 feet in 20 hours. Construction work has already commenced. A new yard system will be installed, in connection with which lumber will be conveyed from the mill by motor trucks, automatically loaded. Electric stackers will be used in piling the lumber, making it possible to double the former capacity of the yards.

The Forest Mills of British Columbia, Limited, Revelstoke, B.C., report that their recent loss by fire at Comaplix resulted in the total destruction of their sawmill and planing mill together with considerable yard equipment. This was the best of the four mills operated by the company. Its equipment consisted of one 9-ft. double-cutting band mill and one 8-ft. band mill. It gave employment to about 140 men. At the time of the fire the mill was closed down temporarily owing to the trade depression, consequent upon the war. The stock of manufactured lumber in the yard, which was all saved, amounted to 14,000,000 feet and the company had about 20,000,000 feet of logs in the water at this point. The loss was fully covered by insurance and the mill will be rebuilt probably next sprin.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1073. **Wood pulp manufacturers.**—Inquiry is made by an Italian correspondent for names of Canadian wood pulp manufacturers.

1075. **Match splints.**—A Liverpool firm of timber merchants reports a demand for match splints and asks to be placed in touch with Canadian manufacturers of same.

1081. **Broom and pick handles.**—A London company who are open to purchase supplies of broom and pick handles would be glad to receive prices from Canadian manufacturers.

1082. **Frames for hammock chairs.**—A London manufacturing company wishes to get into touch with Canadian manufacturers who can supply frames for hammock chairs. They would contract for large quantities, and upon receipt of samples and prices are prepared to give an order for 5,000 for delivery in January.

1103. **Matchwood.**—An English company manufacturing matches is desirous of obtaining supplies of suitable matchwood, preferably aspen, from Canada. They would like to get into touch with Canadian shippers who can quote for their requirements.

1109. **Wood pulp.**—A correspondent in Spain reports a demand in that country for Canadian wood pulp, in consequence of the suspension of Swedish supplies.

1121. **Cooperage stock.**—A Cornish firm of china clay proprietors wants to buy slack cooperage stock c.i.f. Fowey. They can take about 1,000 St. Petersburg standards, if quality and price are right, of the following dimensions:—70 per cent. 41½ in. x 9-16 x 2½ to 5 in. wide; 7 per cent 41½ x 9-16 x 5½ to 6 in. wide; 20 per cent. 27 in. x ¾ x 3 to 7 in. wide; 3 per cent. 26 in. x ½ x 3½ to 4 in. wide. Send samples and prices.

1125. **Pulp.**—A Japanese importing firm wishes to get in touch with exporters of Canadian pulp.

The source of supply of Circassian walnut has been cut off by the European war and the United States are turning to the use of their native walnut, which is again becoming very popular. Before the war most of the native walnut was sent to England, Germany and France.

New Regulations for "School Lands" Timber

New regulations governing the issue of permits to cut timber on school lands in Canada have been issued. "School lands" are lands set apart as an endowment to education in the Western Provinces and they comprise some of the most valuable areas of saw timber and pulpwood in Manitoba, Saskatchewan and Alberta. The new regulations mean a very considerable increase in the license fees which will be charged for the cutting of such timber. Hitherto the timber on school lands was governed by the same regulations as on Dominion lands. However, the latter were framed to allow the settler to cut lumber cheaply, whereas from school lands as large a revenue as possible is desired. A revised schedule of dues has therefore been put into effect. For instance, the rate for cord wood will be 50 cents per cord, and for pulpwood generally, 10 per cent. on the sale value.

The British Post Office recently had an interview with the High Commissioner's secretary on the subject of placing orders for telegraph poles in Canada and informed him that whereas the competition of Russia and Norway for the smaller type of pole would probably place Canada out of court, the home government would be pleased to consider the question of placing trial orders for the larger size poles in Canada.

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5/6th QUALITY

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Lath—Mill Run Pine
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30/40 M. ft. { Log Run Basswood (Mill Culls Out.)
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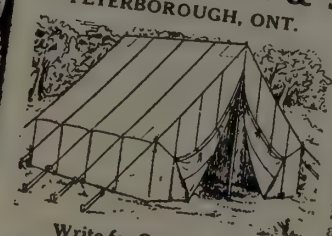

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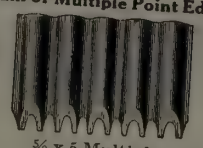

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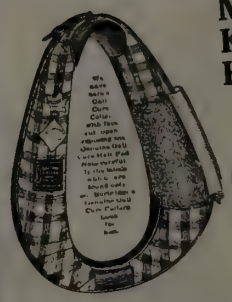

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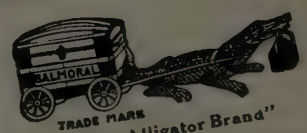

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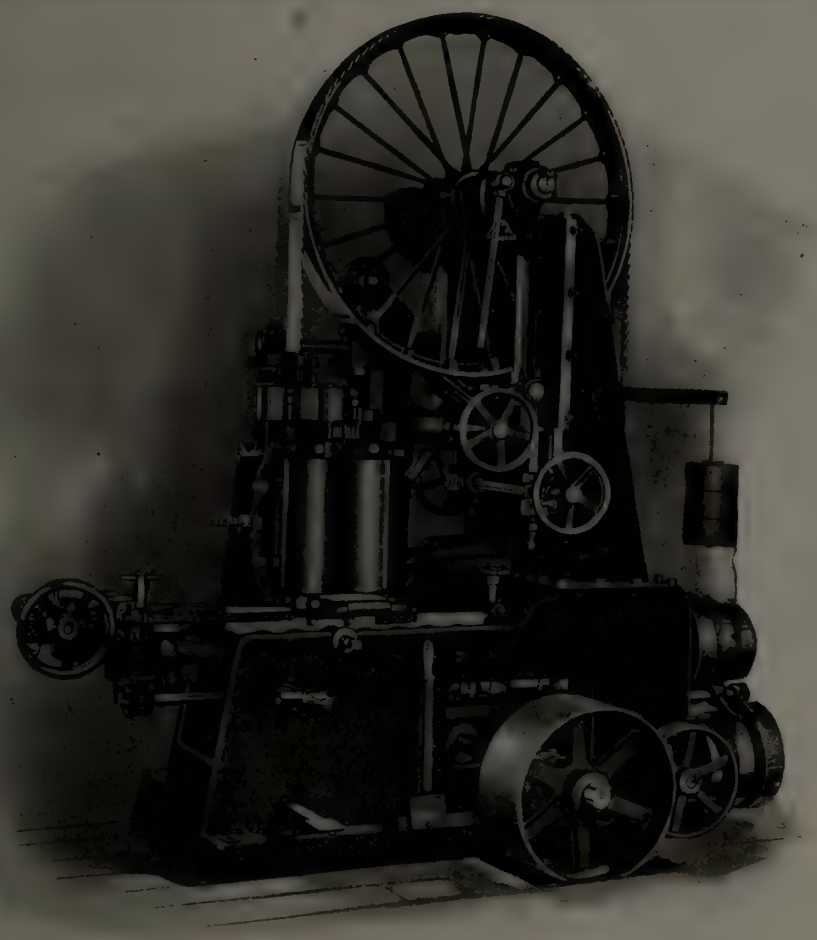

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Bathurst Lumber Company
Canada Wood Specialty Company
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Fassett Lumber Company
Garrett Lumber Company, T. H.
Georgian Bay Lumber Company
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Harris Tie & Timber Company
Laidlaw Lumber Company, R.
McLennan Lumber Company
Montreal Lumber Company
Newman, John P.
New Ontario Colonization Co.
Oliver Lumber Company
Parry Sound Lumber Company
Ritter Lumber Company, W. M.
River Ouelle Pulp & Lumber Co.
Victoria Harbor Lumber Company
Wilson Bros.

LUMBER CRAYONS
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Superior Manufacturing Company

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Canada Pine Lumber Company
Cleveland-Sarnia Sawmills Company
Donogh & Company, John
Fesserton Timber Company
Fraser-Bryson Lumber Company
Gordon & Company, George
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Harris Tie & Timber Company
Hocken Lumber Company
Long Lumber Company
Mackarell & Company, Thos.
Mason, Gordon & Company
Quebec & St. Maurice Industrial Company
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Snowball Company, J. B.
Spencer, C. A.
St. Gabriel Lumber Company
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PENCILS
Dixon Crucible Co., Joseph

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Vitally important is the laboratory in the production of high grade Leather Belting. Only through the most careful analysis can defects in raw material be detected—which if not detected, would result in a weakened finished product. Then, too, the ingredients of these materials must be of the highest quality and of right proportion or they cannot be used.

That is why in the "G & K" Laboratory it is Test, Test, Test, from the green hide to the finished belt. Every analysis, every Test

Guarantees Spartan Leather Belting

—to resist exposure to steam, oil, water and heat generated by excessive pulley friction.
—to grip the pulley perfectly, transmit a maximum of power and reduce the friction load.
—to wear longer and transmit power with greater economy than any other belting material used under similar conditions.

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Successors to
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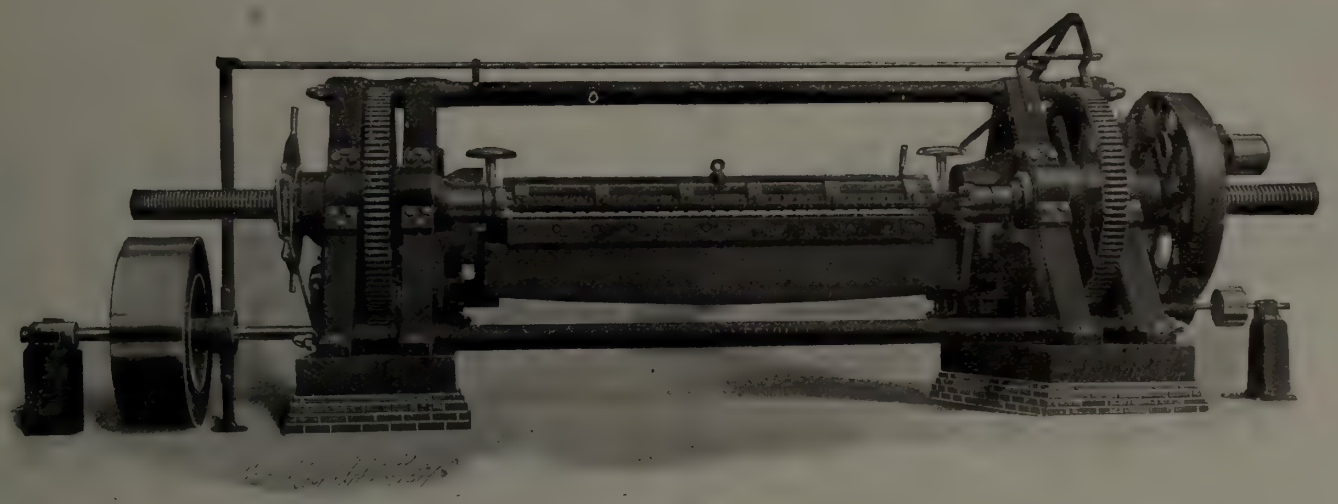

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Made for any length of knife up to 120 inches; diameter of swing, 68 inches; diameter of spindle, 6 to 8 inches; weight is proportionate to length of knife.

THE chief thing required by any machine is ableness to stand severer use continued use, ableness to do whatever the work for which it is bought, as it was represented it would do it, by those from whom it was bought.

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Established 1850

The oldest and largest manufacturers of complete veneer mill equipment in the world.

Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

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Water-proof, weather-proof, smoke-proof, heat-and-cold-proof — this describes Dixon's Silica Graphite and explains its remarkably general recognition as "the longest service paint." Machinery and all metal surfaces exposed to the weather, or to smoke and steam, can be given the safest, surest, most lasting protection by using this protective paint with fifty years of Dixon experience to guarantee its quality.

Write for "Protective Paint" Booklet No. 238-B.

Made in JERSEY CITY, N.J., by the
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ESTABLISHED 1827

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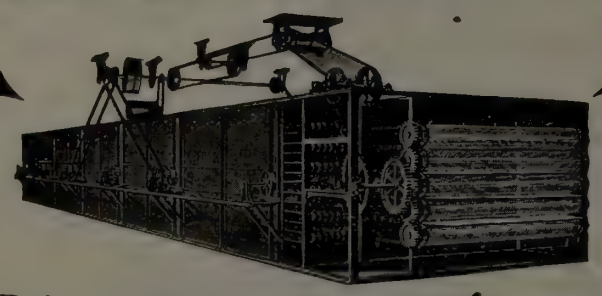

Dries enormous amount of veneer perfectly flat and pliable at minimum cost, without checks or splits

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MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

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Any width, with or across grain. Rapid, no screw adjustment. Guaranteed to give satisfaction on all classes of work.

Huther Bros. Dado Head can be used on any circular saw mandrel and is adjusted in the time it takes to remove a saw. Sent on approval. Write for complete description and catalog.

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¶ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

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Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumbermen to be the lightest and strongest on the market.

Try our Steel Loading Blocks, Twitching Grips, Saw Wedges, Skidding Logs, Timber Carriers, Split Rock Maple Peavey and Cant Hook Handles, etc

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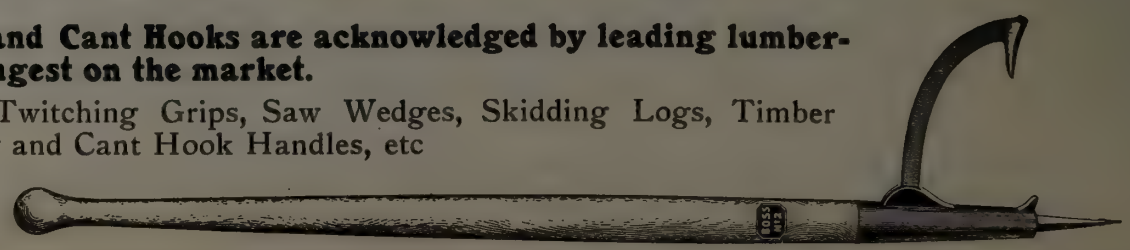

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Saginaw Seven-Foot Band Resaw

Some think they need an 8 ft. or a 9 ft. band resaw. —Our customers know better, finding our 66 in. big enough for usual conditions and our 7 ft. ample for the heaviest and hardest service.

Wm. B. Mershon & Co.
Saginaw, Michigan

Montreal, P.Q., Sept. 10th, 1914

Gentlemen:-

The Seven-Foot Band Resaw we bought of you is giving us every satisfaction.

We find the machine reliable, substantial and amply heavy n all its working parts, and have never spent any money on it for repairs except grinding the wheels every second or third year.

Yours very truly
A. MacLaurin

Wm. B. Mershon & Company
Saginaw, Michigan

Are your horses of use to you?

This seems an absurd question—and the answer is always **"Of course they are"**—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	$4.50 gal.
1 lb. bottles	8.00 doz.
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2 lb. bottles	11.00 doz.

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A sure and speedy cure for all kinds of Colic

1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz,

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, **Collingwood, Ont.**

Exhaust Systems

We design and install Exhausting Systems for Planing Mills, Shoe Factories, Pulp Mills, Grinding and Buffing Plants, or for any business where it is desired to exhaust foul air or convey materials by means of fans. We will be pleased to have enquiries.

Geo. W. Reed & Co., Ltd., Montreal

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TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better ..	62 00	64 00
1½-in. No. 2 C. & B.	45 00	47 00
2-in. No. 2 cuts and better ...	47 00	49 00
4/4 No. 2 and 3 cuts		31 00
5/4 and 6/4 No. 2 and 3 cuts		37 00
8/4 No. 2 and 3 cuts		38 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing ..	27 00	29 00
1 x 8 common and dressing ..	27 00	29 00
1 x 10 common and dressing..	31 00	32 00
1 x 12 common and dressing..	32 00	34 00
1 x 10 and 12 mill cull stocks		23 00
1-in. mill cull sidings		21 00
5/4 and 6/4 x 4 m.r., m.c. out		27 00
5/4 and 6/4 x 5 m.r., m.c. out		27 00
5/4 and 6/4 x 6 m.r., m.c. out		27 00
5/4 and 6/4 x 8 m.r., m.c. out		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out	32 00	34 00
2 x 10 common		26 00
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common.	25 00	26 00
1 x 12 inch box and common..		27 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts		22 00
1-in. mill run Norway		22 00
2-in. mill run Norway		23 00
Norway, c. and cf. 1-in.	28 00	30 00
Norway, c. and cf. 1½-in. ...	30 00	32 00
Norway, c. and cf. 2-in.	30 00	32 00
Spruce mill culls		19 00

Hemlock No. 1:

1 x 4 and 5-in. x 9 to 16 ft. ...	17 00
1 x 6-in. x 9 to 16 ft.	20 00
1 x 8-in. x 9 to 16 ft.	20 00
1 x 10 and 12 in. x 9 to 16 ft.	22 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	18 00
1-in. No. 2, 6-ft. to 16-ft. ...	17 00
2 x 4 to 12, 10 and 16 ft.	20 00
2 x 4 to 12-in., 12 and 14 ft. ...	20 00
2 x 4 to 12-in., 18 ft.	24 00
2 x 4 to 12-in., 20 ft.	26 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 24 ft.	28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	16 00
Clear in B. C. cedar, kiln dried	50 00

Douglas Fir:

Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	32 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	33 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.	33 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	34 00
10x20, up to 32 ft.	34 50
6x18, 8x18, up to 32 ft.	35 00
6x20, 8x20, up to 32 ft.	36 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 to 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1¼, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath..	5 00
1½-in. No. 2 4-ft. lath	4 75
1½-in. 32-in. pine	2 65
1½-in. No. 1 4-ft. hemlock lath	4 00
1½-in. mill run hemlock lath	3 75
XX B. C. cedar shingles	2 25
XXX 6 butts to 2-in.	2 85
XXXX 6 to 23-16-in.	3 05
XXXXX	3 35

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better.....	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1 com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4..	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4..	30 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet...	28 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	28 00
Soft elm, No. 2 and 3 common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4..	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/ .	28 00
Hard maple, 12/4 & 16/4, 1sts and 2nds.	46 00
Red oak, plain 1sts and 2nds, 4/4..	59 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	65 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1sts and 2nds, 4/4.	59 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	65 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up .....$	52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up ..	40 00	42 00
Pine good strips:		
1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No.. 1 dressing sidings ..	30 00	33 00
Pine, No. 1 dressing strips ..	29 00	30 00
Pine, No. 1 dressing shorts ..	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips ..	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips ..	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips ..	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips ..	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft. ...	25 00	26 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in..	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:		
1" x 4" and up, 6'-11'	17 50	18 00
1"x3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12 ...	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16' ..	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal..	60	65
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	75
By the dram, according to average and quality, 30 to 35 feet.	50	60
Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40
Birch		
14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35
Quebec Spruce Deals		
12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00
Birch Planks		
1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. ....$	54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00
1¼ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide..	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00 45 00
1¼, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn

1 inch	28 00 36 00
1¼, 1½ and 2-in.	30 00 36 00
2½ and 3-in.	38 00

No. 3 Barn

1 inch	21 00 28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00 25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00 25 00
No. 2, 1¼, 1½, 2-in.	19 00 23 00

Mill Culls

Mill run culls, 1-in.	19 00
1, 1¼, 1½ and 2-in.	20 00
No. 2	17 00 18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	14 00	17 00	20 50	18 50
2 x 6	14 00	17 00	20 50	18 50
2 x 8	17 00	17 50	21 00	19 00
2 x 10	18 00	18 50	21 50	20 00
2 x 12	18 00	19 00	23 50	21 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch ....$	18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1 ....$	33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch ....$	20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1 ....$	33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 Cedar, Pine, Spruce	3 25

PINE—ROUGH TIMBER

Less $2 per M.	12 ft. 1 4and 16 ft.
3 x 6 and 3 x 8	21 00 21 00
3 x 10	23 00 22 00
3 x 12	24 00 23 00
4 x 4 to 6 x 8	21 50 21 50
4 x 10 to 10 x 10	23 50 22 50
8 x 8	21 50 21 50
6 x 14 up to 32 ft. ...	29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft. .....$	21 50
4, 2 x 6, 4 x 8, 18 to 32 ft.	25 50
2 x 10, 2 x 12, 8 to 16 ft.	22 50
18, 20, 22 ft.	26 50
24, 26, 28, 30, 32	28 50
2 x 14 up to 32 ft.	29 50
3 x 4 to 4 x 12, 8 to 16 ft.	24 00
3 x 4 to 4 x 12, 18 to 32 ft.	29 00
6 x 6 to 6 x 12, up to 32 ft.	24 00

FLOORING

No. 1 and 2 red pine, 4 in.	34 00
E. G. No. 1 and 2 fir flooring	39 00
B. C. Fir E. G. No. 1 and 2 flooring	39 00
F. G. No. 1 and 2 flooring	31 00
E. and F. G. No. 3 flooring	30 00

SHIPLAP

Pine or spruce	24 00
8 to 16 ft., 6 in.	22 00
B. C. Fir, 8 in., 10 in. and 12 in. shiplap 10/16 ft.	23 50
B. C. Fir 6 in. shiplap 10/16 ft.	23 50

BOARDS—ROUGH OR S. 1 S.

No. 1 common pine, 10 inch .....$	31 00
No. 2 common pine, 10 inch	25 00
No. 3 common pine, mixed widths	20 00
No. 4 common pine, mixed widths	14 50
No. 5 common pine, mixed widths	10 00

SHINGLES

XXX B. C. Cedar	$3 00
XX B. C. Cedar	1 90
XXX Dimension	3 25
No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

LATH

No. 1 Mixed W. & R. Pine	$4 25
No. 1 B. C. Fir	3 65

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4 ....$	94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine Common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00
No. 1 Moulding 8/4	58 00

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28 "Service" Branches Throughout Canada

Canadian Consolidated Rubber Co., Limited

Montreal, P. Q.

A New Year's Resolution For You

"RESOLVED that, during 1915 and thereafter I will give preference, in my purchases of rubber goods and all other material, to such as are made in Canada."

So far as rubber goods are concerned, you run no risk in making this patriotic resolution, as we manufacture a complete line and the price, quality and style are right.

When in the market for tires, hose, belting, packing etc., let us show you what we can do.

It is our desire to serve you.

Canadian Consolidated Rubber Co., Limited

Montreal, P. Q.

28 "Service" Branches Throughout Canada

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"Wilson Bros." Flooring and Trim

"Wilson Bros." stamped on every piece of this flooring stands for Quality. Look for the name. Hardwood and Pine. **Interior Finish of All Kinds.** Also Hardwood Veneer Doors to detail. We are equipped to fill large or small orders on short notice. Write us for prices.

Wilson Bros., Limited - Collingwood, Ont.

The Three Goodhue Belts

"EXTRA" "STANDARD" "ACME WATERPROOF"

These three brands are made for three different services and each brand is the best quality made from selected hides with the stretch taken out.

"Goodhue Belts" stretch less than any other belt by 15 to 25 per cent. This quality effects a great saving because it is unnecessary to be continually shortening the belt to keep it taut.

"Acme Waterproof" brand is made for the wet places in a mill and will give a remarkable service under the most trying conditions.
When you buy a belt—buy a Goodhue. Prices and particulars on request.

J. L. Goodhue Company, Limited
DANVILLE - QUEBEC

MAPLE LEAF SAWS

MAPLE LEAF SAWS, **"THE PROVEN BEST,"** absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saws when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

Shurly-Dietrich Co., Limited, Galt, Ontario
Branch: VANCOUVER, B.C.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4			47 00
No. 2 Moulding 6/4			47 00
No. 2 Moulding 8/4			47 00
No. 1 Barn 1 x 12			48 00
No. 1 Barn 1 x 6 and 8			34 00
No. 1 Barn 1 x 10			36 00
No. 2 Barn 1 x 6 and 8			32 00
No. 2 Barn 1 x 10			34 00
No. 3 Barn 1 x 6 and 8			26 00
No. 3 Barn 1 x 10			27 00
Box 1 x 6 and up			23 00
Box 1 x 10			25 00
Box 1 x 12			26 00
Box 1 x 13 and up			30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE

	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	30 - 32	20 - 22	14 - 16
5/4 to 8/4	33 - 35	22 - 24	14 - 15
10/4 to 16/4	37 - 39	27 - 29	19 - 21

RED BIRCH

4/4	41 - 43	27 - 29	15 - 17
5/4 to 8/4	43 - 45	29 - 31	17 - 19

SAP BIRCH

4/4	35 - 37	23 - 25	17 - 19
5/4 and up	37 - 39	25 - 27	17 - 19

SOFT ELM

4/4	35 - 37	24 - 26	15 - 17
5, 6 & 8/4	37 - 39	26 - 28	17 - 19

BASSWOOD

4/4	33 - 35	24 - 26	16 - 18
Thicker	35 - 37	26 - 29	19 - 20

PLAIN OAK

4/4	51 - 53	32 - 34	20 - 22
5/4 to 8/4	53 - 55	34 - 36	22 - 24

ASH, WHITE AND BROWN

4/4	45 - 47	27 - 29	18 - 20
5/4 to 8/4	52 - 54	29 - 31	19 - 21
10/4 and up	61 - 63	41 - 43	21 - 23

BOSTON, MASS.

White pine uppers, 1 to 2 in.	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards	23 50	25 00
Spruce, 10 in. dimension	24 00	27 00
Spruce 12 in. dimension	26 50	28 00
Spruce, 9 in.	23 50	24 50
Spruce, 8 in. and under dimen.		23 00
10 and 12 in. random lengths, 10 ft. and up		24 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up		20 00
All other random lengths, 7-in. and under, 10 ft. and up	20 00	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	21 00	22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	22 00	22 50
1⅝-in. spruce laths		4 10
1½-in. spruce laths	3 70	3 80

New Brunswick Cedar Shingles

Extras		3 30
Clears		2 80
Second clears		2 75
Clear whites		2 40
Extra 1s (Clear whites out)		1 50
Extra 1s (Clear whites in)		1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40	3 55
Red Cedar Eurekas, 18-inch 5 butts to 2-in.		4 25
Red Clear Perfection, 5 butts to 2¾		4 80
Washington 16-in. 5 butts to 2-in. extra red clear		3 35

Sturtevant Collecting and Conveying Systems at C.P.R. Shops, Montreal

The above system handles all sawdust and shavings from the woodworking shops.

17 Sturtevant

Slow Speed Planing Mill Fans

are used. Note how shavings can be switched to furnace feeders, shown through the door at the left, into a car shown below or into the shavings storage vaults. Storage is the small brick structure in the centre.

Sturtevant Fans are in universal use in lumber mills and woodworking plants.

Send for Catalog 1850

B. F. Sturtevant Co. of Canada Limited

Galt, Ontario, Canada

Toronto, Montreal, Winnipeg and Vancouver

Manufacturers of Engines, Turbines, Heating Systems and Mechanical Draft Systems

"To be, or not to be, that is the question,
Whether 'tis nobler in the mind
To suffer the slings and arrows
Of outrageous fortune,
Or to take arms against a sea of troubles." —Hamlet.

Hamlet the Prince of Denmark is a character which

every budding actor aspires to play. The late Sir Henry Irving certainly inspired many to study the works of Shakespeare and those who were privileged to hear him in Hamlet's famous soliloquy are not likely to forget it. Most of us have been in a state of doubt on many occasions and said to ourselves: The question is:

TO BE, or not TO BE

We can serve the interests of our customers who use Babbitt Metals and recommend without any hesitation.

Harris Heavy Pressure

The Babbitt Metal Without a Fault

Engineers using H. H. P. avoid a sea of troubles.
They know IT WILL GIVE EXCELLENT SERVICE

Manufactured and guaranteed by

The Canada Metal Company

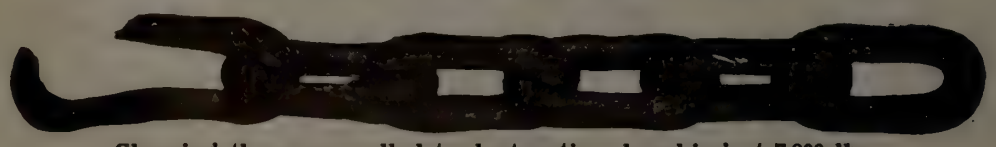
Limited

Head Office and Factory, TORONTO

Branch Factories, Montreal, Winnipeg

"AJAX" The World's Strongest Chain

Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

Do your log loading with the "Ajax" loading chain, every link of which is guaranteed. The illustration tells a convincing story.

Manufactured only by

Standard Chain Company

Pittsburgh, Pa.

The World's Largest Chain Producers.

Montreal: Alexander Gibb, St. Nicholas Bldg.
Winnipeg: Bissett & Loucks.
Vancouver: John Burns, 329 Railway St.

One Setter Can Work All Day With This Machine

With a steam set works you do not have to change setters twice or three times, a day. One man can do all this work, because the hard work is done by steam.

And you get better lumber, because the travel of the piston is as exact as in a steam engine, so that a steam set works of itself simply cannot cut uneven lumber.

Further, you get more lumber, because it will set up to four inches as quickly as any other machine will set two inches.

Let us send you further particulars.

William Hamilton Co., Limited

Peterborough, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

The Connecting Link

Way back in 1880 the **Wanted and For Sale** columns of the Canada Lumberman and Woodworker were used extensively by the lumbermen of Canada for the purchase and sale of timber, lumber and machinery.

Time has but served to enhance the value of this medium, until to-day the **Wanted and For Sale Department** of the Canada Lumberman has become a national market.

Twice a month "the paper with the green cover" brings together buyers and sellers of lumber and machinery from all the principal lumbering centres of Canada and the United States. By covering this wide field, the percentage of waste circulation for advertisers has been reduced to a minimum.

For quick and satisfactory results, get your advertisement in the **Wanted and For Sale Department** of the

Canada Lumberman & Wood Worker

Published 1st and 15th of the Month

The National Lumber Journal of Canada

TORONTO - - - CANADA

Branch Offices:

Montreal Winnipeg Vancouver London, Eng.

United States Representatives:
W. D. Ward, 628 Tribune Building, NEW YORK.
E. J. Macintyre, 1155 Peoples Gas Building, CHICAGO.

If Your Boiler Were a Mile from Your Engine

—and your pipes were covered with J-M Asbesto-Sponge Felted Pipe Covering, the loss of heat through radiation and condensation would be far less than that lost in a hundred feet of poorly insulated pipe.

For whatever distance it may be used J-M Asbesto-Sponge Felted Pipe Covering assures the delivery of the maximum amount of steam from every pound of fuel. Its insulating efficiency is so much greater than that of ordinary covering that an installation of J-M Asbesto-Sponge Felted Pipe Covering will save its cost in from five months to a year.

JM Asbesto-Sponge Felted Pipe Covering

is made of many layers of thin felt, composed of pure asbestos fibre and finely ground sponge. It is extremely tough and flexible, so that vibration, moisture, heat and rough usage will not cause it to crack, crumble or lose its insulating efficiency. It can be repeatedly taken off and replaced without injury.

Its high insulating value is due to the large amount of confined "dead air"—the best non-conductor known.

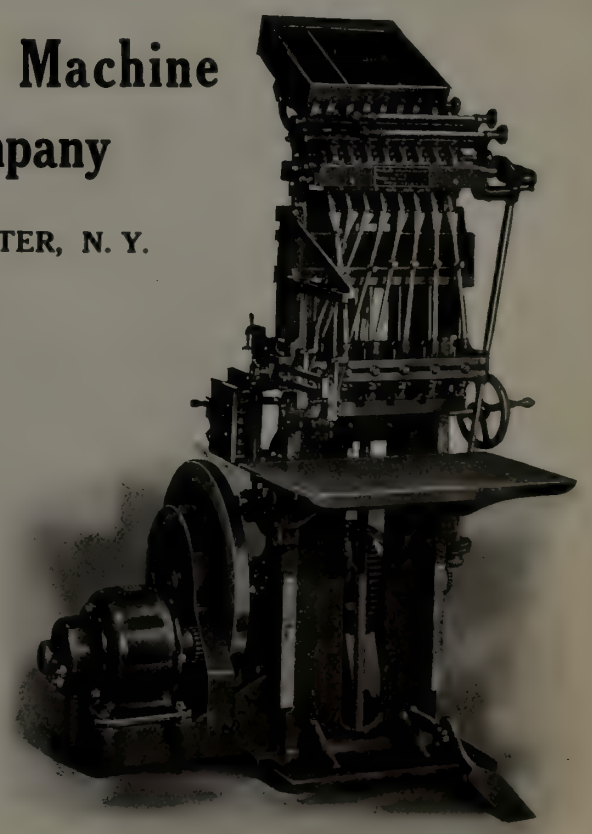
Write nearest Branch to-day for
"J-M Asbesto-Sponge Felted Pipe Covering" Booklet

THE CANADIAN
H. W. JOHNS-MANVILLE COMPANY, LIMITED

Toronto Montreal Winnipeg Vancouver 2801

Morgan Machine Company

ROCHESTER, N. Y.



Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.

THE PETER GERLACH Co

MANUFACTURERS AND BUILDERS OF

CIRCULAR AND CYLINDER
SAWS

STAVE, HEADING AND BARREL
MACHINERY

SAW AND LOGGING
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For the Manufacture of the Following

STAVES	HEADING
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CHAIR STOCK	SHINGLES
CLOTHES PINS	LUMBER

COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS, ADDRESS
THE PETER GERLACH Co. CLEVELAND. O. U.S.A.

PRATT & WHITNEY CO.

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SMALL TOOLS

Taps — Dies — Reamers — Cutters — Drills

MADE IN CANADA

As good as money can buy—Guaranteed absolutely!

Head Office and Works, *DUNDAS, ONT.*

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Good Steel Carefully Manufactured
Properly Tempered

Ask for Catalogue and Quotations

Galt Knife Company, Limited

GALT - ONTARIO

INDUSTRIAL LOCOMOTIVES

The designs of our small locomotives are the result of wide experience.

All details are accurately finished to standard gauges and are absolutely interchangeable on all locomotives of the same class and size.

This cuts out long delays when parts wear out, as parts liable to wear can be kept on hand or shipped promptly from our works.

MONTREAL LOCOMOTIVE WORKS, LIMITED

DOMINION EXPRESS BUILDING, MONTREAL. CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. **Get Catalog "H."**

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

New RAILS Relaying
12 to 80 pounds per yard.
LOGGING CARS
Jno. J. Gartshore
58 Front St. West, Toronto

SPECIAL HIGH SPEED LEATHER BELTING.

Every Millman Knows

how hard it is to get any belt to deliver power at

HIGH SPEEDS

A belt is required better than the ordinary. We have it.

It costs a little more than Standard Leather, but is worth it.

Other Belting lines:

Lanco Balata
Scandinavia
Teon

Write for our book on Belting.

Federal Engineering Co., Ltd.
Toronto - Montreal

This engine is 13½ ins. x 18 ins. and weighs 35 tons.

The knowledge and experience of fifty years in locomotive designing and construction is what you get in our Logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run. Oil or coal burning.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

Grey Iron Castings—any size or shape—ordinary or intricate—made promptly. New foundry, splendidly equipped. We would be pleased to quote on castings—singly or by contract. We also make drop forgings of all descriptions.

MAY WE SEND YOU SPECIFICATIONS?

Canadian Locomotive Company, Limited, Kingston, Ont.
Taylor and Arnold Ltd., Sales Agent, Montreal and Winnipeg

The Mark THE E. LONG MANUFACTURING CO. LIMITED SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

MAKE GOOD ON LATH

The working up of by products is becoming daily more important in the lumber business.

The profits to be derived depend altogether on manufacturing cost, since material cost is nil.

For this reason, a careful selection of machinery is all important—under exacting requirements, our machines are making good.

Write for our Catalog, covering the most up-to-date line of Lath Machinery in America.

The E. Long Mfg. Co., Limited, Orillia, Canada

AGENCIES:

Vancouver—Robt. Hamilton & Co.
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Winnipeg—The Stuart Machinery Co., Ltd.
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THESE WATEROUS DOGS CAN CERTAINLY HANDLE TIMBER—

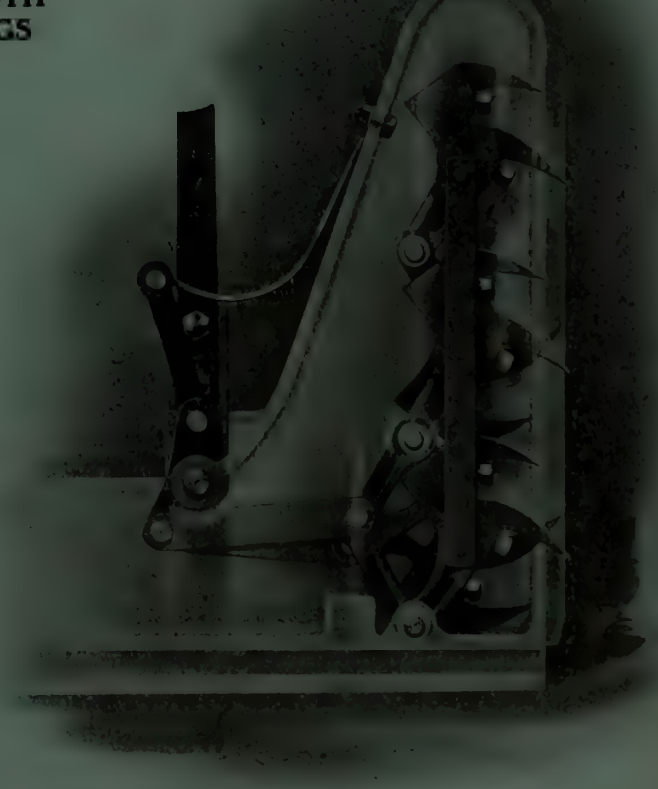
In frozen maples, or hardwoods of any description —***in small logs or large ones,***—they take hold with a bull-dog grip that pins the timber into place ***to stay.***

The shape and sweep of the teeth, the position of the pin centres, the arrangement of lever straps and connections, all are designed to make dogging, quick, easy and ***sure.***

When handling squared timbers, the dogs are without superior. They hold the timber fast without marring it—they will dog to cut the last 1" board, without slipping and with perfect safety.

WATEROUS IMPROVED BOSS DOGS

WATEROUS INSERTED TOOTH DOGS



WATEROUS IMPROVED BOSS DOGS INSERTED TOOTH DOGS

These dogs are alike in their ability to handle logs and timbers on the carriage togive the best results in ***safe and easy sawing.***

Every detail of their construction—from the choice of materials used, to the way they are put together—is the result of years of careful experiment to give you the best dog that can be produced. These dogs have made good. They not only operate easily and safely but they have the ***stuff*** in them to stand up to hard knocks and rough use.

The Inserted Tooth Dog has the special feature that the teeth are removable. It allows a tooth that is broken or bent to be replaced with a new tooth without having to remove the whole set.

Both dogs are attachable to ***any make*** of knee in use. Remember this when you overhaul your carriage this winter. ***If you want good, strong, safe dogs we sell them.***

The Waterous Engine Works Co., Limited

Vancouver, B.C. **Brantford, Canada** **Winnipeg, Man.**

"FROST KING" METAL

$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. **Price 30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.**

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, **40c per lb.**; West of Fort William, **45c**, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

"Maple Leaf" Brand

Stitched Cotton Duck Belting

A trial Belt will convince you. Write for prices and samples.

Excels all others in economy, strength, efficiency and true running, whether for transmission of power or conveying. A test recently made at McGill University, Montreal, of a 6-ply **"Maple Leaf"** belt, a light double leather, and a 6-ply rubber belt, showed that our **"Maple Leaf"** Belt stood a breaking strain 50 per cent. greater than the leather, and 25 per cent. greater than the rubber belt.

"Maple Leaf" Main Drive Belts
Are the Best on the Market.

"Maple Leaf" Belt Dressing is the best for all kinds of belts.

Dominion Belting Co., Limited

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Branch: Montreal—Office 51 Duluth Building

The J. C. McLaren Belting Co.

Limited
General Mill Supplies **MONTREAL**

BOILERS

"INGLIS" boilers are the product of over 50 years' experience and study combined with the most modern equipment for boiler making.

"INGLIS" boilers are made in every type and all sizes.

Let us quote on your requirements.

The John Inglis Co., Ltd.

Engineers and Boilermakers
14 Strachan Ave. Toronto, Canada

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Vol. 34 Toronto, December 15, 1914 No. 24

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
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are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.

Electric-Welded Boom Chain

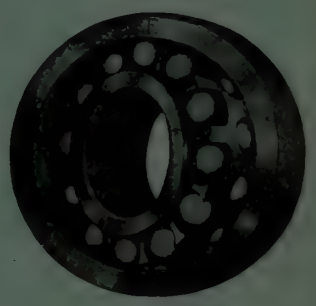
25% {More Weld = 25% {More Strength = 25% {More Wear

Sheared Toggle and Ring * T Bar Hook and Link * Two Sheared Toggles * Forged Toggle and Ring

Made in Canada Write to Fully Guaranteed

McKinnon Chain Co., St. Catharines, Ont.

Save 20 to 40 per cent of your Transmission Losses



Install U. G. Hanoers (made in Can.) **and Skelko Ball Bearings** (made in Eng.) They require no rearrangement of a plant already installed nor departure from well established mill practice. They insure the most sturdy, highly efficient and economical method of line shaft power distribution.

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St. John, Montreal, Toronto, Winnipeg, Saskatoon, Calgary, Vancouver, Victoria

New **RAILS** Relaying

12 to 80 pounds per yard.

LOGGING CARS

Jno. J. Gartshore

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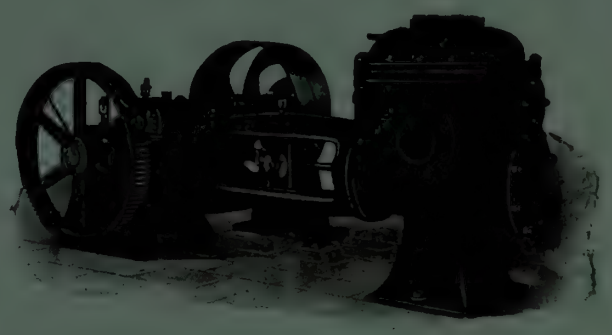

Maximum Service

Highest Efficiency

Reasonable Cost.

These are outstanding features of PUMPS built by

The Smart-Turner Machine Company, Limited

Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"

Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited ∴ ∴ **MONTREAL**

One Setter Can Work All Day With This Machine

With a steam set works you do not have to change setters twice or three times, a day. One man can do all this work, because the hard work is done by steam.

And you get better lumber, because the travel of the piston is as exact as in a steam engine, so that a steam set works of itself simply cannot cut uneven lumber.

Further, you get more lumber, because it will set up to four inches as quickly as any other machine will set two inches.

Let us send you further particulars.

William Hamilton Co., Limited

Peterborough, Ontario

View of logs in Sturgeon River

White and Norway Pine Dimension Timber

6 x 6—12/16′,	25,000′	10 x 10—12/16′,	65,000′
6 x 8—12/16′,	50,000′	10 x 10—20/24′,	52,000′
8 x 8—12/16′,	25,000′	10 x 12—16′,	45,000′
8 x 8—20/24′,	38,000′	12 x 12—11/14′,	34,000′
8 x 10—12/16′,	22,000′	12 x 12—16′,	105,000′
8 x 10—18′,	16,000′	12 x 12—20/28′,	40,000′
8 x 10—20/28′,	13,000′	12 x 12—20/28′,	28,000′
8 x 12—16′,	5,000′		

When you want the best in WHITE and NORWAY PINE, write or wire us for prices.

Dressing Done on Short Notice.

George Gordon & Company

Limited

CACHE BAY - - ONTARIO

FIR TIMBERS FIR FINISH

Fir Casing, Base, Interior Finish and Mouldings

RED CEDAR SHINGLES CEDAR BEVEL SIDING

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Mills at Ruskin and Vancouver, B. C. | HEAD OFFICE: 445 Hastings St. West, Vancouver, B. C.

Spruce, Hemlock and Hardwoods

We have on hand ready for shipment:—

1,000,000 ft. Merchantable Hemlock 1″, 2″ and 3″, lengths 9 ft. to 26 ft., widths 4″ to 11″, each length and width piled separately.

1,200,000 ft. Merchantable Spruce 1″, 2″ and 3″, lengths 8 ft. to 24 ft., widths 4″ to 12″, piled separately.

700,000 ft. Hard Maple 1″, 1¼″, 1½″, 2″ and 3″, sawn on grade.

250,000 ft. 1″ and 1½″ Beech, sawn on grade.

125,000 ft. 1 x 4 & up Basswood L.R., No. 2 C. & B.

125,000 ft. 1″ M. C. Ash.

70,000 ft. 1″ M. C. Elm.

We specialize in timbers—lengths 10 ft. to 26 ft. long, and we have facilities for Dressing.

Send us your inquiries

Fassett Lumber Company, Limited

Fassett, Que.

Spruce
White Pine
Banksian Pine
Birch

Get our stock list and prices.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, Portland, Maine

Birch

South River and Longford

180,000 ft.	1 x 4 and up	6/16	Dead Cull
300,000 ft.	" "	"	No. 2 and 3 Common
280,000 ft.	" "	"	No. 1 Common
75,000 ft.	5/4 x 4 and up	"	No. 1 Com. and Btr.
30,000 ft.	" "	"	No. 1 Common
75,000 ft.	8/4 x 6 and up	8/16	1st. and 2nd.
20,000 ft.	" "	"	No. 1 Common
15,000 ft.	10/4 x 6 and up	"	1st and 2nd
300,000 ft.	4/4 x 4 and up	6/16	No. 3 Common

The Long Lumber Company

Hamilton, Ont.

"Safety First"

Don't take a chance on losing a customer by selling him some inferior lumber, sell him

Hocken's Hemlock

and you'll be safe.

Hocken Lumber Company, Limited

Otter Lake Station, Ont.

TRADE T MARK (REGISTERED)

DRY WHITE PINE

2 x 7 - 12/16
2 x 8 - 12/16
2 x 9 - 12/16
6/4 x 8 - 12/16
6/4 x 8/10 - 12/16

Watson & Todd, Ltd., Ottawa, Ont.

The
Harris Tie & Timber Co.
Ottawa - Canada
Lumber - Lath - Shingles
Cedar Poles and Posts
Railway Ties - - Piles

The
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Limited
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Manufacturers of High Grade
Lumber
and Laths

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Wholesale Lumber Dealers
Selling agents for Fraser & Co., Manufacturers
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Spruce
Lumber and Lath

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Established 1873

GILLIES BROS.
Limited

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BRAESIDE, ONT.

Manufacturers of
WHITE PINE
RED PINE
SPRUCE

New York City: Guy E. Robinson, 1123 Broadway

BARTRAM BROTHERS, LIMITED
OTTAWA, CANADA

SPRUCE, WHITE AND RED PINE

Ask for quotations on some of the undermentioned stock

Norway Pine

1 x 4 & up	x 10/16′	Culls	1,301,250′	1 x 10	x 10/16′	Merchantable	10,584′
2 x 4 & up	x "	"	229,138′	1 x 12	x "	"	2,497′
				2 x 4	x "	"	155,852′
1 x 4 & 5	x 10/16′	Merchantable	1,041,188′	2 x 6	x "	"	207,855′
1 x 6	x "	"	328,402′	2 x 8	x "	"	283,262′
1 x 7/9	x "	"	41,239′	2 x 10	x "	"	161,731′
1 x 8	x "	"	48,083′	2 x 12	x "	"	57,663′

Your enquiries for Spruce, New Brunswick Cedar Shingles and Lath will receive prompt attention.

BROMLEY
FOR
Red and White Pine
Wholesale Lumber Lath and Shingles

We have the best there is. Ready to ship promptly, at the right price.

W. H. Bromley
Pembroke, Ont.

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Birks Building, VANCOUVER, B. C.

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Pulp and Paper Co., Limited

Head Office, St. John, N.B.

Mills: St. John, N.B. Blackville, N.B. Marysville, N.B.

Manufacturers of

Bleached Sulphite Pulp

Spruce, Pine and Hemlock Lumber, Laths

Hardwoods

Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

We Dress from 1 to 4 Sides up to 16-in. x 20-in., 60-ft.

Our grade is positively right, and prices will please

Timberland Lumber Co., Limited

Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.

Mills at Craigs on the B.C.E.R.

Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

Thurston-Flavelle Lumber Company

MANUFACTURERS OF

British Columbia Red Cedar Exclusively

4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding.
8, 10 and 12 inch CLEAR CEDAR FINISH.
EXTRA XXX RED CEDAR SHINGLES.

Eastern Agents, Gull River Lumber Co., Ltd., Lindsay, Ont.

Head Office and Mills, Port Moody, B.C.

For Quick Shipment Send Your Orders to Us

THE FOLLOWING DRY

Pine and Spruce Lumber

IN STOCK FOR IMMEDIATE SHIPMENT, EITHER ROUGH OR DRESSED

No. 3 Barn and Better White Pine

10 cars	1 x 8″	10 ft. and up
2 “	1 x 10″	“
50 “	1 x 7″ and up	“
10 “	1¼ x 7″ and up	“
10 “	1½ x 7″ and up	“
2 “	1½ x 12″	“
5 “	3 x 6″ and up	“

Clear and Clear Face Spruce

2 cars	2 x 6″	10 ft. and up

Clear and No. 1 Spruce

10 cars	1 x 4″ and up	10 ft. and up

Merchantable Spruce

10 cars	1 x 6″	10 ft. and up
5 “	1 x 7″	“
4 “	1 x 8″	“
5 “	1¼ x 8″	“
3 “	3 x 10″ and up (mostly 11″)	“

Also “BEAVER BRAND” White Cedar Shingles—full count.
Shipment by rail or water.

The Bathurst Lumber Co., Ltd.

Bathurst, N.B., Canada

JOHN MCKERGOW, President — W. K. GRAFFTEY, Managing-Director

The Montreal Lumber Co. Limited

Wholesale Lumber

Ottawa Office: 46 Elgin St. — Montreal Office: 759 Notre Dame St., W.

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SPRUCE

13 Foot and 16 Foot

Lath and White Cedar Shingles

CHRISTY-MOIR CO.

149 Broadway, New York City

FOR SALE
HARDWOOD LUMBER

Dimension Stock, Mattress Frames, Hard and Soft wood slabs cut to lengths required. Hemlock, Cedar, Posts.
Orders receive prompt attention.
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JOHN P. NEWMAN, Wiarton, Ont.

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LUMBER AND TIMBER

White Pine, Norway, Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.
NIAGARA FALLS, N.Y.

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Write us for particulars and prices

Superior Mfg. Co., Ltd.
93 Church St., Toronto

BAUGHMAN'S
BUYER AND SELLER

Special Price, $1.00

Canada Lumberman - Toronto

Hardwood Flooring
The Celebrated Diamond Brand
End Matched, Bored, Polished and Bundled

Manufactured by
SIEMON BROS., LTD.
For prices write
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Phone M. 2814 — TORONTO

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Good Grades — Right Prices — Prompt Shipments

Canadian Hardwood. National Grading Rules

Birch
Basswood
Maple
Elm
Beech
All Thicknesses

Also full line in

White, Red
and
Jack Pine
All grades and sizes.

Get in touch with us for prices

C. G. Anderson Lumber Company, Limited

Manufacturers and Strictly Wholesale Dealers in Lumber

206 Manning Chambers
Toronto

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood, Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON
QUEBEC

The Canada Wood Specialty Co., Limited

Manufacturers:

Lumber, Hardwood Flooring, Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

Orillia, Ont.

R. LAIDLAW LUMBER CO.
LIMITED

Toronto
Sarnia
Buffalo

The Rimouski Industrial Co., Ltd.
(La Cie Industrielle de Rimouski, Ltee.)

Dressing of wood in transit on the Intercolonial Railway.

SPECIALTIES

Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie

Pine and Hardwood
Lumber
Lath and Shingles

North Tonawanda, N. Y.

James W. Sewall

TIMBER Estimates, Topographic and Boundary Surveys, Planting, Logging Maps, Portable Mill Operations.

Technical Training Thoroughness
Experience

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OLD TOWN, MAINE

HOBART & CO.
CHOICE
Southern Hardwoods
Cypress, Kiln Dried North Carolina Pine
Send Us Your Inquiries
53 State St., BOSTON, MASS.
Yard at Prison Point
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The Penetanguishene Planing Mill Sash and Door Factory
Planing of all kinds done by carload. Railroad Switch in connection with mill. All classes of building material, lime and cement for sale.
ALPHONSE TESSIER, Builder & Contractor
PENETANGUISHENE, ONTARIO

Do you know the worth of your Timber Lands?
My methods of cruising, based on 24 years' experience, will prove as valuable to you as they have to many large Banking and Bond Houses, Railroads, Corporations, and private Investors in the United States and Canada,
Whether you want to buy, bond or sell I can be of service to you.
F. R. MEIER
Consulting Forester
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Formerly: Forest Expert U. S. Forest Service, State Forester of New Jersey, Timber Expert Penna, Forest Commission, etc.

Pro-gressive Lumbering
demands accurate knowledge of quantity, quality and accessibility of timber supply.
This knowledge, when obtained by our
TIMBER ESTIMATES
is reliable. It appeals to
Timber Investors,
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100,000 Ft.	5/4	1st and 2nd Basswood
2,500 "	8/4	" " "
2,500 "	16/4	" " "
12,000 "	8/4	1st and 2nd Soft Elm
17,000 "	4/4	No. 1 C. & B. Soft Elm
22,000 "	8/4	No. 1 C. & B. Soft Elm
50,000 "	4/4	No. 2 C. & B. Birch
13,000 "	3 x 8	to 16"—10 to 16 ft. 1st and 2nd White Ash
13,000 "	2 x 6	and up—10 to 16 ft. No. 1 C. & B. White Ash

Hardwoods Thoroughly Dry
Your Inquiries Will Have Prompt Attention

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All stock sized or matched if required.

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Best Stock for Factory and Pattern Lumber

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Send a Boy on a Man's Errand

This boy actually does the work of five men using any other machine for logging

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Manufacturers of

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Dry stock in all sizes. *Quick shipments.*

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Yellow Pine and B.C. Shingles always in transit

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We can ship immediately, in good sized lots, Spruce Piling, 30 to 60 feet long, 6 to 8 inches at small end.

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Our Specialty

We always have on hand a full line of Spruce and Tamarac Piles, 25 to 50 feet in length.

We offer for immediate shipment
Dry Spruce—2 x 4, 2 x 6 and 2 x 8.

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FOR SALE—1913 CUT

36,000 ft. 1 x 4, 6/11'	Com. & Drsg.	White Pine
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8,000 ft. 2 x 5, 10/16'	M. R.	Red Pine
6,000 ft. 2 x 7, 10/16'	M. R.	Red Pine
12,000 ft. 5/4 x 4 & up, 10/16'	M. R.	Red Pine
14,000 ft. 6/4 x 4 & up, 10/16'	M. R.	Red Pine
50,000 ft. 1 x 10/12, 10/16'	M. C.	White Pine

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60,000 2" No. 1 C. & B. Elm	150,000 1" No. 1 C. & B. Elm
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This stock was cut early, is dry, and was taken from an exceptionally good run of logs. We are quoting attractive prices on this lumber for prompt shipment.

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Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

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Far sighted owners of timber lands should take advantage of the times incident to the European wars, and prepare themselves for the day when the demand for timber is suddenly thrust upon them. This is certain to come at no distant day. Therefore cultivate a closer acquaintance with your holdings, and the best method of marketing them. Let us prepare the way for you. Remember, we not only report on the property, but assist in marketing the bond issue when necessary. Send for our booklet.

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Long Leaf Timbers, Short Leaf Finish and Railroad Material

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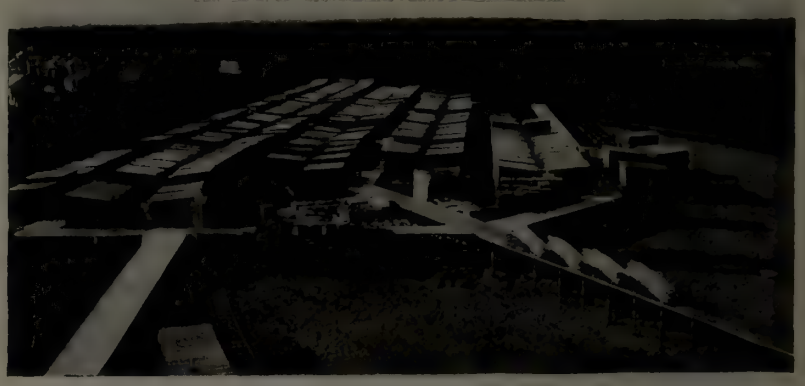
Planing Mill Work



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We have the following lumber on hand ready for shipment as shown above, and for which we solicit your orders viz:

1 x 4 Merchantable Spruce.	1 x 12 Merchantable Spruce.
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1 x 6 Merchantable Spruce	4/4 Balsam.
1 x 7 Merchantable Spruce.	4/4 No. 2 and Better Whitewood
1 x 9 Merchantable Spruce.	8/4 No. 2 and Better Whitewood
1 x 10 Merchantable Spruce.	4/4 Mill Run Poplar.

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Manufacturers of

SPRUCE

Lumber Lath Pulpwood

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Mills at:

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On I. C. Ry. 75 Miles East of Quebec City

We are the Sole Owners of

and are prepared to manufacture at our Factory in Hamilton, Ont. and to supply the Canadian trade with any of the devices covered by the following patents of the Dominion of Canada.

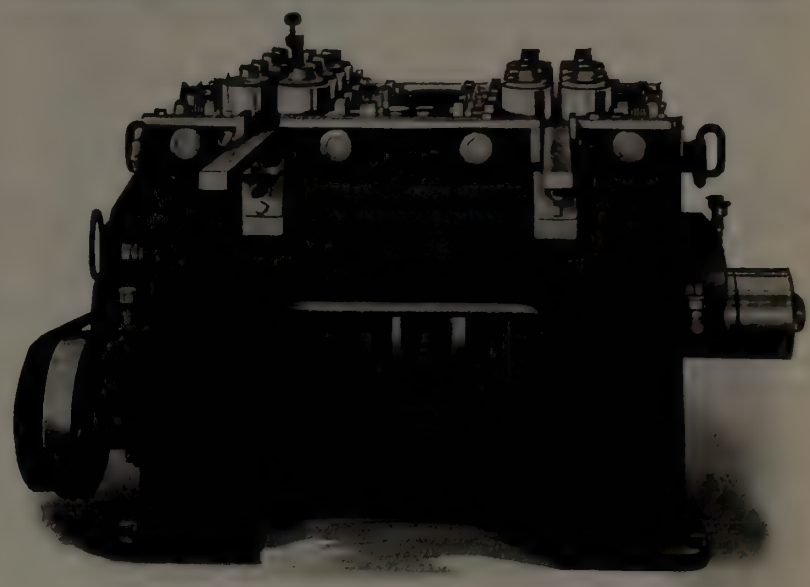
CANDIAN PATENTS

No. 79,896	Mar. 24, 1903	Improvement in babbitting devices.
No. 107,380	Sept. 10, 1907	Cutter Head Knife Sharpener.
No. 108,490	Nov. 12, 1907	Band Saw Tensioning device.
No. 109,194	Dec. 17, 1907	Adjusting Means for Planer Heads.
No. 109,845	Jan. 21, 1908	Adjusting Means for Planer Heads.
No. 110,216	Feb. 11, 1908	Variable Speed Mechanism.
No. 110,217	Feb. 11, 1908	Variable Speed Devices
No. 113,311	Aug. 4, 1908	Driving Mechanism for Planers.
No. 113,478	Aug. 11, 1908	Sanding Machines
No. 115,919	Jan. 5, 1909	Knife Holder for Cutter Heads.
No. 117,080	Mar. 9, 1909	Multiple Board Guages.
No. 120,467	Sept. 14, 1909	Multiple Guages.
No. 120,468	Sept. 14, 1909	Locking Mechanism for Guaging Devices.
No. 120,610	Sept. 21, 1909	Feeding Mechanism for Saws.
No. 121,235	Oct. 12, 1909	Feed and Adjusting Mechanism for Saws.
No. 121,236	Oct. 12, 1909	Adjusting Means for Saws.
No. 122,023	Nov. 23, 1909	Adjusting and Grinding Planer Knives.
No. 122,172	Nov. 30, 1909	Feed Rolls for Planers.
No. 122,341	Dec. 7, 1909	Holding Device for Planer Head Bits.
No. 123,041	Jan. 4, 1910	Cutter Heads for Grooving Machines.
No. 123,239	Jan. 18, 1910	Fastening Means for Planer Knives, etc.
No. 127,643	Aug. 23, 1910	Bearings.
No. 128,664	Oct. 18, 1910	Holding Devices for Planer Heads.
No. 128,665	Oct. 18. 1910	Grinding and Jointing Devices for Planers.
No. 128,797	Oct. 25, 1910	Planer Heads.
No. 128,918	Nov. 1, 1910	Sawmill Carriages.
No. 129,089	Nov. 8, 1910	Double Acting Set Works.
No. 129,200	Nov. 15, 1910	Abrading Cylinders.
No. 129,343	Nov. 22, 1910	Planer Knife Sharpeners.
No. 129,489	Nov. 29, 1910	Improvements in Lathes or Turning Machines.
No. 135,863	Sept. 26, 1911	Cutter Heads for Edgers.
No. 137,636	Jan. 2, 1912	Spiral Indicator.
No. 138,258	Feb. 6, 1912	End Thrust Bearings.
No. 139,018	Mar. 12, 1912	Planer Knife Holding Devices.
No. 139,019	Mar. 12, 1912	Matching Planer Heads.
No. 139,020	Mar. 12, 1912	Expansion Cutter Heads.
No. 139,021	Mar. 12, 1912	Clamping Devices for Woodworking Machines.
No. 139,310	Mar. 26, 1912	Matching Planer Heads.
No. 139,311	Mar. 26, 1912	Tensioning Device for Feed Rolls.
No. 140,031	Apr. 30, 1912	Steady Rest for Wood Turning Machines.
No. 140,514	May 21 1912	Straight Opening Drums.
No. 144,261	Nov. 26, 1912	Profile Cutter Heads
No. 144,579	Dec. 10, 1912	Adjustable Guides.
No. 148,441	June 10, 1913	Chipbreaker for Planers.
No. 148,936	July 1, 1913	Adjusting Devices.
No. 148,937	July 1, 1913	Board Cleaners.

Berlin Machine Works, Limited

Hamilton, Canada

Box Board Matcher



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Why An Aloxite Saw Gumming Wheel Cuts Cool

ALOXITE is tough—it has just the proper temper to keep the wheel with a free cutting face.—The wheels are of an open or porous nature, thus allowing the free action of the grain. —A close bonded wheel drags—creates friction—friction means heat. Aloxite wheels cut cool, free, fast—they don't fill—they produce no unnecessary friction—they work without rasp or screech—hold their shape—show long life.

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Rough and Finished

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Used for every purpose for which a soft wood is adapted.
Furnished in any width and thickness.
Manufactured goods of all kinds.

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As All Other Concerns Combined

250,000,000 feet constantly in stock insures filling any reasonable order promptly.
Our Canadian trade is constantly increasing and we are always striving to merit a still larger increase.

Our salaried salesmen receive credit for mail orders. Try us.

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Austin & Nicholson

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Rough and Dressed Lumber and Lath

We offer for shipment before the New Year, or will contract for shipment after April 1st:

600 M	1 x 4 and up	Jack Pine	Common	and	Better
200 M	2 x 4	"	"	"	"
100 M	2 x 6	"	"	"	"
150 M	2 x 8	"	"	"	"
120 M	2 x 10	"	"	"	"
20 M	2 x 12	"	"	"	"
45 M	3 x 8 and 10	"	"	"	"
65 M	1 x 5 and up, Spruce				
125 M	1 x 5 and up, White Pine				
250 M	1 in. Jack Pine Culls				
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One Car	1 in. Poplar				
One Million	Lath				

Also 1915 cut, approximately Six Million feet Spruce, Jack Pine and White Pine, either in standard grades or cut to order. After Mill opens can ship two cars per day Dressed and Matched. Correspondence solicited.

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"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

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Special Alligator Ropes
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Wire Rope Fittings. **Wire Rope Grease.**

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Manufacturers of Hardwoods—Any Thickness From

1/30″ SLICE CUT VENEER
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Specialty:

QUARTERED WHITE OAK

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QUARTERED OAK PLAIN OAK
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He profits most who serves best.

Satisfaction Guaranteed

Stearns Quality Stock

45 M 1 x 6 in. and wider 1s and 2s End Dried White Basswood.
36 M 1 x 6 in. and wider 1s and 2s Basswood.
18 M 5/4-6 in. and wider 1s and 2s Basswood, 50 per cent. 16 ft.
19 M 6/4-6 in. and wider 1s and 2s Basswood.
78 M 4/4-7 in. and wider No. 1 Common Basswood.
27 M 5/4-3 in. to 6 in. No. 1 Common Basswood.
32 M 4/4-7 in. and wider No. 2 Common Basswood.
62 M 5/8 No. 2 Common and Better Beech.
48 M 4/4 6 in. and wider 1s and 2s Beech.
74 M 4/4 6 in. and wider No. 1 Common Beech.
86 M 6/4 3 in. and wider No. 1 Common Beech.
68 M 8/4 No. 2 Common and Better Beech.
72 M 4/4 6 in. and wider No. 1 Common Birch (Red all in).
45 M 4/4 1s and 2s Soft Gray Elm.
90 M 4/4 No. 1 Common Soft Gray Elm.
70 M 4/4 No. 2 Common Soft Gray Elm.
79 M 4/4 No. 2 Common and Better Soft Maple.
21 M 8/4 No. 2 Common and Better Soft Maple.

The Stearns Salt & Lumber Co.

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Below is List of Dry Lumber We Can Ship Promptly

POPLAR
We can furnish all thicknesses and grades from 5/8 to 4 in.

RED OAK
4/4 firsts and seconds, 2 cars.
5/4 firsts and seconds, 1 car.
6/4 firsts and seconds, 1 car.

WHITE OAK
3/8 firsts and seconds, 1 car.
1/2 firsts and seconds, 1 car.
3/4 firsts and seconds, 2 cars.
4/4 firsts and seconds, 1 car.
5/4 firsts and seconds, 3 cars.
6/4 firsts and seconds, 3 cars.
8/4 firsts and seconds, 2 cars.
No. 1 common we can furnish in all thicknesses from 3/8 to 2 in.

CHESTNUT
Can furnish all grades and thicknesses from 4/4 to 8/4 in Chestnut.

BASSWOOD
Can also furnish any grades in 4/4 that you require.

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Reach the lumber and veneer buyers of Canada's woodworking plants through this paper, the recognized authority in the field.

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Established 1874

We specialize in HEAVY HORSES

We always have a Large Stock on hand

Oldest and Largest Horse Dealers in Canada

Good horses are hard to find, so deal with an old and reputable firm. Your interests are ours.

"LET US KNOW YOUR WANTS"

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Spruce, Hemlock and Hardwoods

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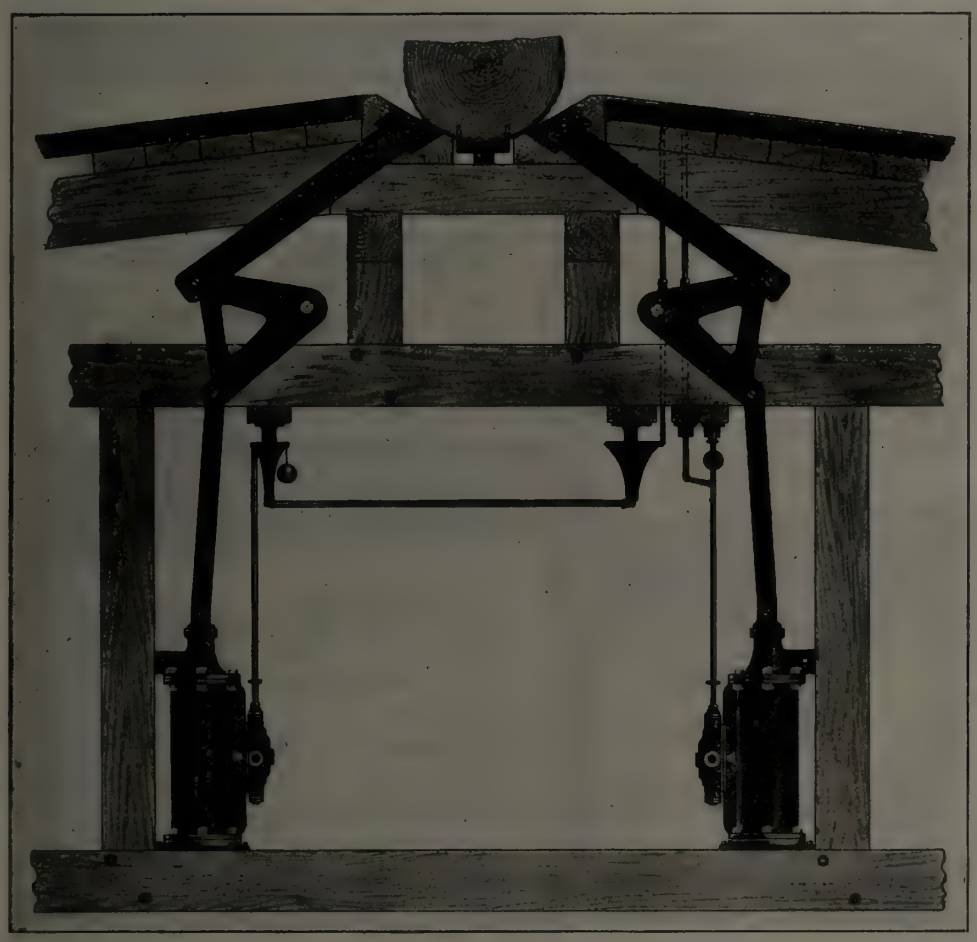

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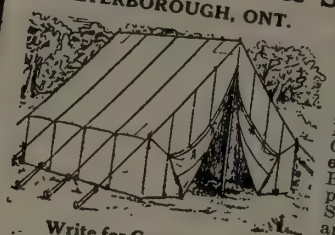

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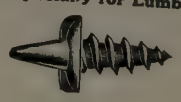

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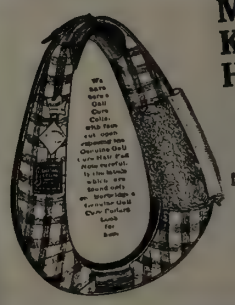

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The Best Oats on the market. Let us fill your next order and prove what we say.
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Cures and invigorates the horse by its general action on the Stomach and Bowels.
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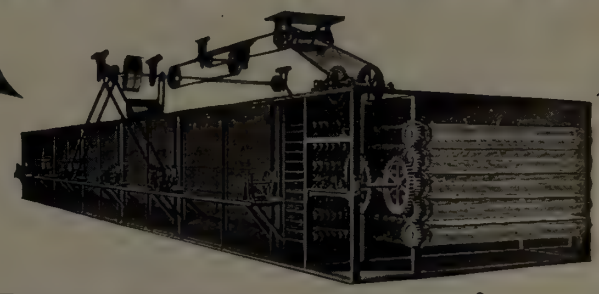

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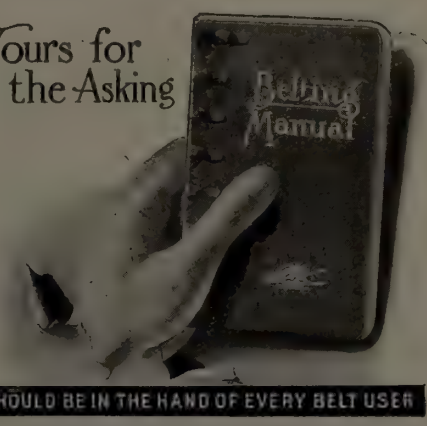

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Nothing Can Alter Canada's Enormous Resources

During the last year and a half in Canada, there has been so much discussion of the origin of the business depression that came upon us early in 1913 that nowadays, with the great war coming to cast all other subjects into the shade, the former subject seems almost to have dropped out of sight. Nevertheless, it is still of great importance, not so much in itself, but as one of the great contributing causes in connection with present day industrial and economic conditions. Englishmen whose interests lead them to an analytical study of these questions in other countries where British capital is such an important a means of national development as is the case in Canada, see our affairs from a wide angle and appreciate our situation in a manner which makes their views of prime importance. The general manager of the Clerical, Medical & General Life Assurance Company of England, Mr. A. D. Besant, returned recently from Canada, and expressed interesting views regarding Canada under war conditions, and its prospects for the immediate future.

Canadians must be patient and economize, says Mr. Besant, and must get closer down to actual production from the land. Canada has such stupendous resources awaiting development that it is absurd to be pessimistic about her. But she must act the prudent and courageous part.

Mr. Besant was struck with the contrast in present conditions between the east and the west. He says: Business conditions in the west are undoubtedly difficult. In the autumn of 1912 the land boom collapsed, and that brought about a certain amount of unemployment. Then the depression caused by the collapse was accentuated by the increasing difficulty in obtaining loans on the London market. This in its turn increased further unemployment, and the prevailing conditions caused a great falling off in immigration. This falling off meant a decrease in building, and that immediately hit the lumber industry in British Columbia severely. On the top of all this came the outbreak of war, which caused much dislocation of industry. It must not, however, be forgotten that Western Canada is quite a new country, and that its trade has been conducted on credit, and that there has not been time for the accumulation of wealth. Consequently, any temporary set-back is far more serious in its effects than it would be in an old settled country like England.

As a set-off to these conditions in the wheat growing provinces it must be said that the farmers will this year obtain very high prices for their wheat, and the circulation of the money thus obtained may do something to relieve the situation. The coming winter will be a time of difficulty for the towns. The great hope for the future is that the present crisis will check the artificial development of new towns and send a large proportion of the citizens on to the land, where they will become producers, and not merely distributors of wealth.

Eastern Canada is in a better position to meet the strain, because she possesses larger manufacturing industries, some of which are kept actively engaged by orders due to the war. The East is indeed much better off than the West. Many industries, however, are hit by the loss of trade with Germany, and by the impossibility of recovering debts. There is unemployment in the east as well as in the west, but owing to the eastern towns having reached something like maturity, they are better able to face the position. But nothing can alter the fact that the undeveloped resources of the country are enormous, and that the agricultural and mineral industries are only in their infancy. They are only beginning to be tapped, and the potential wealth of the country is incalculable.

It is rather academic to talk of Canada as a field for investment—a point of especial interest of course to British insurance companies. New capital cannot be obtained in any large amount as long as the war lasts. The constant expenditure in development is, of course, essential to a new country like Canada, and until the London loan market becomes available again, the progress of the country must be retarded. Money is needed for development in every direction for mines, irrigation, docks, and other enterprises. Large as has been the past expenditure, good investments will be found in Canada for all capital available for many years to come. But in the meantime Canada will have to pass through a serious economic crisis, and for the first time will have to meet expenditure out of income, without assistance from the stream of new capital so freely imported in the past.

Dominion Charters Upheld

The recent decision of the Privy Council in the case of the John Deere Plow Company v. Duck, and Wharton v. The John Deere Plow Company, clears up, to a very great extent, a number of uncertainties which have surrounded the matter of Dominion and Provincial Companies' licenses ever since Confederation. The chief result of the decision is the establishing of the paramount jurisdiction of the Dominion over trade and commerce, making it definitely clear that a company which has secured a Dominion Charter may carry on business in the various provinces of Canada without the necessity of taking out anything in the form of a Provincial charter. Manufacturers and other commercial companies operating in Canada who are well advised, will, as a result, henceforth take out Dominion charters and ignore Provincial licensing acts. In order to understand the situation clearly it is necessary to refer briefly to the cases upon which judgment has been given by the Privy Council.

The John Deere Plow Company was incorporated under a Dominion charter, with head office in Winnipeg, and authorized to carry on business in agricultural implements throughout Canada. The case of the Company v. Duck was an action for breach of contract to accept delivery of certain implements Duck had ordered but afterwards refused to take, alleging that the company, having no license in British Columbia, could not proceed against him. The company claimed that its Dominion charter was all that was necessary to enable it to carry on business in any province. The case of Wharton was a friendly action asking for injunction to restrain the company from carrying on business in British Columbia on the ground that such

business would be illegal because the company had no Provincial license. Both cases were tried in the Supreme Court of British Columbia and decided against the company. Appeal was then taken to the Privy Council.

The judgment is very sweeping and declares that the clauses of the British Columbia Act under consideration are invalid because they interfere with the powers conferred on the company by the Dominion Parliament, and with the company's status in the courts. The judgment applies equally to the extra-Provincial licensing and registration acts in Ontario, Manitoba, Alberta, Saskatchewan, New Brunswick, Nova Scotia and the Yukon. The act of the province of Quebec specifically excepts Dominion companies and is therefore unaffected. The act of Prince Edward Island is of a different character and is also unaffected.

Briefly, therefore, the situation is as follows:—

To do business throughout Canada a Dominion charter alone is necessary.

A Provincial license enables a company to do business in the province from which the license is obtained. Whether a Provincial license enables a company to do business outside of the province issuing the license, is still unsettled, and is under consideration in connection with a case shortly to come before the Privy Council.

A province can no longer compel a company with a Dominion charter to obtain a Provincial license or to be registered in the province as conditions of exercising its powers or of suing in the courts.

The rights of the provinces to enact laws affecting the general public in the provinces and relating to civil rights, or taxation, or administration of justice are not affected.

The opinion of the Privy Council is definitely asserted in the following reference to the provisions of the British Columbia Companies' Act which were under discussion:—"Their Lordships think the legislation in question really strikes at the capacities which are natural and logical consequences of incorporation by the Dominion Government of companies with other than Provincial charters."

Argentine Imports of Lumber

Up to the present, the greater part of Canada's exports to Argentina has consisted of lumber, chiefly white pine and spruce, says a report from the Canadian Trade Commissioner at Buenos Aires. In 1911, imports of white pine from Canada amounted to $1,095,000 out of a total import of $2,711,000, but in the following year the figures had dropped to $195,000, out of a total of $2,207,000. In the former year the United States supplied $1,510,000, and in the latter $1,791,000. The figures for spruce were, in 1911, $1,241,000, from Canada, out of a total of $3,388,000, and in 1912, $1,484,000, out of a total of $3,823,000. In the former year the United States supplied $1,510,000, and in the latter year $1,722,000.

These figures are in gold, the par value of which is $103.65 to $100 Canadian. There are no detailed statistics later than 1912; since then there have only been published the usual quarterly statements, which are confined to the total of each commodity. In 1913, imports of white pine amounted to $1,406,879, which was a decrease of $800,393, as compared with the year before. For the first six months of the present year, the imports were $629,430, which is an increase of $24,196 over last year. Comparing 1913 with 1911, the falling-off in the importation of white pine amounted to no less than $1,303,937. The total imports of spruce in the year 1911 were $3,387,659, and in the following year $3,823,429, an increase of $435,770. Last year this increase was lost, as the imports decreased to $2,964,094, a reduction of over $859,000 as compared with 1912. During the first six months of the present year the imports amounted to $734,678, which is $530,656 less than the same period of last year.

The reason for this serious decrease in the imports of timber is that building has been very much overdone in the Republic. Up to the early part of last year, the trade experienced great activity, and many new buildings were constructed. With the first warnings of the present crisis and the consequent slackening of the demand for first-class accommodation, a check was experienced. This has been gradually developing in sympathy with the increasing financial stringency, until it can be said that the trade is suffering from a veritable paralysis, the amelioration of which can only be brought about by an improvement in business conditions, and a renewal of confidence.

It is most unlikely that there will be any improvement in the imports of lumber for at least twelve months. Material coming in now is to complete contracts undertaken prior to the advent of the present financial stringency. Most of the dealers are carrying large stocks, which they are unable to liquidate, even at the lower prices which held prior to the recent increase in lumber, due to the high cost of freights, etc.

Quebec spruce has the best name in the Argentine market for quality, after which comes the New Brunswick and Nova Scotia product. To a small extent it is used as a substitute for white pine, owing to its fine grain and freedom from knots. It is particularly sought after in the construction of freezing chambers. Quebec spruce is used for the architraves of windows and for skirting boards, whilst New Brunswick and Nova Scotia spruce are used for common floors, temporary partitions, cattle sheds and for corrales in the camp. A certain amount of West Virginia spruce is imported. Whilst the quality is not so highly regarded as that from Quebec, it is liked on account of its size, as it is possible to cut all 12-inch widths out of this timber, which is not the case with the Canadian product, and it has also been stated that the lower price of the Virginian spruce more than offsets the advantages of quality and texture of that from Quebec.

The Lumberman's Influence Upon His Own Markets

A reader of the Canada Lumberman living in Vancouver, B.C., sent us a letter, a few days ago, upon a subject which we have discussed in previous issues, namely, the use of birch in the manufacture of saddle-trees, and upon a few other points suggested by our previous article. The article in the Canada Lumberman was an interview, drawing attention chiefly to the curious fact that Canadian birch was being purchased in extensive quantities by Canadian saddle-tree makers, through American wholesale houses; a strange proceeding which involved the sending of a certain amount of money out of Canada by way of commission to United States firms, in order to enable Canadian producers and consumers to do business with one another. Now, this was simply a single instance among many to which we referred, most of them, however, having a direct bearing upon one point, that Canadian consumers and United States consumers for that matter, frequently purchase stocks in a round-about manner, or stocks which are less suitable for their purpose than others which could be secured more cheaply or from a closer market. Our idea was to impress upon some of our readers the fact that there is still a great deal of room for study of the sources of raw materials, with a view to encourgaging more economic conversion of our forest products into finished articles. This particular instance had reference, like several others which were mentioned, to eastern Canadian trade, but our Vancouver reader has lost no time in letting us know that eastern Canada is not singular in this respect.

Anyone who makes lumber in any of its forms owes it to himself, and to his confreres in the industry, to encourage its use as widely and as economically as is possible and consistent with the wise preservation of our timber resources. Therefore the reference to the shingle industry in British Columbia is a timely and instructive one. If we are to continue to manufacture shingles, we should see that nothing which we do will discourage the use of shingles or have an adverse effect upon their price. A man who is engaged in the manu-

facture of lumber ought to see to it that his own example is a good one as a trade producer. This is probably one of the most fundamental axioms in connection with all kinds of industry and trade. To take a very ordinary illustration, one cannot imagine one manufacturer of pianos going to another firm and purchasing one of its pianos to install in his home; neither would one expect a manufacturer of wooden interior finish to go to a manufacturer of steel or other varieties of trim and buy the material for the inside of his home or office. When it comes to a show-down, what excuse is there for a man who puts other than shingle roofing upon his sawmill or shingle mill. The reason given is that he finds it necessary or wise, from an insurance point of view. As to the wisdom or necessity of this he has probably not informed himself as he should, or he would at least be inclined to make an effort to persuade the insurance people to favor shingles, or to permit them. Such a reason for the use of a competitive material can only be reasonable if one has already done all he can to promote a movement in favor of shingles and to encourage the study of means for making shingles fireproof.

Have the lumbermen of Canada as yet done anything effective in the direction of fighting against the opposition of the so-called fireproof materials which threaten to take away a great deal of business from the lumber trade? In the United States a very vigorous campaign is now being planned in this direction, but in Canada little has been done. We believe that, if the lumbermen will look into this matter seriously, they will find that there is now a practical possibility of bringing about a far more satisfactory situation in this connection, and that one of the most important factors in such a work will be that lumbermen themselves should become one of their own important groups of customers and so set a practical example to all others.

There are several other interesting points brought out in the letter from our Vancouver reader, which is published elsewhere in this issue. We fancy that many of our readers will think that he has put the matter a little too strongly when he reflects upon the business enterprise of Canadians as compared with the people of the United States. This is, of course, a matter of personal opinion, although we can scarcely believe that Canadians as a whole are not the equal of their friends across the line, from the business point of view. In the particular case cited by the writer of this letter, that of the use of birch for saddle-trees, we know that the Canadian manufacturers of birch were fully alive to the great possibilities in the sudden and extensive demand for saddles resulting out of the war. They were on the job from the start and the cases in which Canadian saddle-tree makers bought birch through United States houses were not the result of Canadian owners of birch being asleep. They had so much business to handle in a very limited time that they were unable to cover the whole market. Moreover, it was very natural that United States firms should have been equally awake to the importance of the situation and have sought some of the Canadian trade, knowing that it was very urgent and extensive. The interesting part of it was that some Canadian saddle-tree makers were not able, on account, we believe, of the urgency of the case, to find Canadian quotations, and so sent their orders to United States firms who sold them Canadian birch; all of which argues eloquently in favor of a much more complete and definite study, on the part of all lumber consumers, of the available sources of lumber which they can use.

Editorial Short Lengths for Busy Readers

Some startling statements were made at the sitting of the Dominion Railway Commission held recently at Edmonton, Alta., in connection with the demand of the Forestry Department that the Edmonton, Dunvegan and British Columbia Railway be made to comply with the regulations of the board regarding fire protection. One of the Forestry Department's fire rangers estimated that 20,000,000 feet of timber had been burned as a result of fires along the railway's right-of-way. The railway commission issued an order last September instructing the E. D. & B. C. to provide better fire protection. It is alleged that, according to the evidence produced, this order has been disregarded. The board reserved decision for the present but intimated that it would take drastic measures unless the E. D. & B. C. shows some respect for its ruling.

Under the caption "Wood and the Naval War" the Timber Trades Journal of London refers to an interesting feature in connection with the sinking of one of the English ships lost in the present war and makes the significant statement that "wood has, on many occasions, temporarily lost its birthright, but scarcely ever permanently. Unless there is some undisclosed fact connected with the sinking of H .M. S. Hermes the trade must, on international grounds, assume that the wooden sheath kept he affoat for about two hours, and thus gave time for the saving of many lives. It is understood that she was struck by three torpedoes. If this was so, the benefit of the wooden sheath is the more remarkable, and suggests that the absence of this in more recent warships may have something to do with such heavy loss of life in both navies. Wood has, on many occasions, temporarily lost its birthright, but scarcely ever permanently. Is this then likely to be a return in part to the wooden walls which have proved their worth in days gone by? If not altogether, then in conjunction with armor plate?"

Much excitement has been caused in Sweden by the action of the German Government in declaring that all wood will be considered contraband of war. Strong efforts have been made by the Swedish Government, but without avail, to have Germany exclude wood from its list of contraband materials. It is reported from Stockholm that many ships loaded with timber, to a total value of 30,000,000 kroner are lying in Swedish ports ready to put to sea. The foreign office of Sweden lodged a protest with Berlin against this action, but were not successful. The German legation at Stockholm gave out the following announcement in reply:—"The action taken by Germany declaring all wood conditional contraband was necessary, because wood in manufactured shape cannot be dispensed with in England for building barracks for the new army, nor in France for trenches and as foundation for artillery. Consequently, when wood is shipped to the respective countries it is serving the enemy's cause." This outcome will cause serious consequences to the Swedish lumber trade and newspapers in Sweden are recommending that renewed represntations be made to Berlin.

Speaking before the members of the Forestry Club at the University of Maine, E. Lisherness, the Bangor forest engineer, resently predicted that the picturesque log drive on the small streams of Maine and vicinity will soon be done away with. He declared that the logging railroad is the cheapest and most efficient means of transporting raw material from the scene of operations and within another decade will be universally adopted in Maine. "This will be the method for the future where large amounts of lumber are to be transported for quite a distance," he declared. In summing up the advantages of the use of a logging railroad, Mr. Lisherness claimed for such a method reliability and cheapness of operation, delivery of logs without loss from breakage, a lower cost of building and operating than cost of dams and driving on small streams, a saving in hauling and toting, possibility of operation on narrower roads than used by the log hauler, and in every way greater efficiency and safety in transporting logs from the timberland to points where large rivers or other means of transportation are available. Mr. Lisherness advocated that all foresters should study civil engineering on account of the many problems which require a knowledge of that profession constantly arising in connection with large lumbering operations. He spoke highly of the excellent work being done by the large pulp and paper concerns in Maine toward conservation of the timberlands of the State. In speaking of methods of mapping and estimating standing timber, Mr. Lisherness said that the "cruiser" who once walked through a tract of woods and guessed at the amount of timber is now out of fashion. Even the method of dividing the tract into strips, actually counting the trees on a given strip and thus approximating the whole, is inefficient, he said. The modern idea is to measure approximately 5 per cent. of the tract and thus estimate the whole.

The Reader's Viewpoint on Trade Topics

Can British Columbia Recover its Importance in the Export Trade to Australia? —Further Discussion of the Birch Question

A Diagnosis of B.C.'s Lumber Troubles

Editor Canada Lumberman: Vancouver, B.C., Nov. 30th.

In an article recently published by Mr. Henry Pearce in the Canada Lumberman, the question of the export lumber business has been treated at some length, and the influence that the present war in Europe is likely to have upon it, is touched upon. The arguments of the writer appear to me to cover very well the points they treat of. I will, however, attempt to supplement one or two of them from an experience of several years in the export lumber trade from points on the Gulf of Mexico.

I think he is quite right in advocating a British Columbia Bureau of Inspection somewhat similar to the Pacific Lumber Inspection Bureau, but the membership should be held by the shipper and not necessarily by the mill cutting the material shipped. (I will state my reason for this later). His suggestion that a commission should be sent to the various countries which promise a market for our lumber is an excellent idea. It is odd how little is known of this coast and its products in some quarters. Quite recently, the firm of which I am a member (the Mainland Lumber & Shingle Company) had an inquiry from an importer in a large seaport town in England, asking for quotations on shipments to continue until "the close of navigation by ice," evidently classifying Vancouver with Vladivostok. Another firm shipping from the Gulf Coast, with whom I have done a good deal of business in the past, asked us to confirm their assumption that Douglas fir is a resinous pine and similar to that shipped from the Gulf. It will be necessary for the commission to be supplied with all details regarding the durability of our product, breaking strains, etc., and to be able to produce samples to show its actual nature. Our advantage over the pitch pine formerly supplied to South America for example, will be in the fact of our being able to ship so much larger sizes, containing on the whole fewer knots and showing so much less sap, pitch pine being a more sappy wood and there being a difficulty in obtaining it in anything like large timbers.

I also agree with Mr. Pearce in refusing to admit that we are suffering from any disadvantage in comparison with the exporters on the American side, unless in the matter of harbor dues and wharfage, the cost of which seems at present to be rather ill-defined; but in any case these details must certainly not be allowed to stand in the way. As a matter of fact the facilities that tidewater mills on this coast enjoy, make the export business appear a veritable delight to anyone who has undergone the harassed existence of a pitch pine exporter, say, eight or ten years ago. To begin with, we always made a c.i.f. or delivered price on the basis (for steamer cargoes) of a maximum charter; a complicated contract, the two chief features of which were that the shipper had to hire and pay the stevedore and that he was obliged to load the vessel with the utmost rapidity in order to make any profit. The tramp vessels in those days carried no wireless, so that one could only approximate the day of their arrival. This was awkward when the whole cargo was to be collected (as I have known it to be) at a dozen different mills, perhaps not more than one or two of them on tidewater. It was necessary to get about half of it loaded on cars before the probable date of the vessel's arrival and to badger an ill-managed railroad system into giving cars fast enough to load the rest and keep the stevedore supplied. Sometimes a vessel would make two ports of loading, say, Gulfport and Pensacola, and three or four different ports of discharge and have more than one separate parcel for some of the latter. Also the lumber was always on flat cars and during the rainy season the sap would turn "blue," causing claims at the point of destination.

This brings me back to the reason for having the membership in the Bureau of Inspection vested in the shipper instead of in the millman, as I understand that of the Pacific Lumber Inspection Bureau is. If we are to be able to ship export lumber from the smaller inland mills it would seem an unreasonable tax on them to compel each one to take out and pay for a membership on account of his small quota of a few carloads, when a large tidewater mill could supply an entire cargo of two or three million feet on a similar membership. The actual shipper would be allowed the privilege of the bureau, of which he is a member, irrespective of what mill he may ship from. I am assuming that the railroads will give us every facility they can in the way of car service, etc., towards enabling the smaller and interior mills to participate in this business. With an administration experienced in handling the export trade it is interesting to observe how rapidly a port may be built up. I saw that of Gulfport, Mississippi, grow from practically nothing to an output of twenty-five million feet a month.

I notice that Mr. Pearce cites as an objection with which he has to contend the plea that the lower grade lumber would be left on the exporter's hands. But China takes a large quantity of the lower grades. Rio de Janeiro and the Argentine (though just now out of the running) use almost entirely a class of pitch pine approximating to our merchantable. The west coast of South America also imports a cheap grade of lumber, and the Genoa prime that goes to Italy is about on a par with our No. 1 common. France, Belgium, England and Germany, however, use the better grades of flooring and heart face boards.

One difficulty instanced by Mr. Pearce is perhaps insuperable, but it is really less of a difficulty than a necessity. The handling of export cargoes directly from the mill to the foreign dealer or consumer has not been found practicable, at least in the pitch pine trade. The amounts involved are large, the credits run to 90 days after arrival, and the chances of unjust claims are too great. Almost all of the export business I refer to is conducted through large London or Continental brokers, carrying very large capital in the business, besides maintaining responsible arbitrators to adjust claims. Being well known, the banks will discount their drafts; it would cause an endless amount of correspondence and inquiry to put every individual buyer upon a similar credit basis. Some of the most profitable orders (such as large timbers for wharf buildings) could not, in the nature of them, occur again for a very large period, and such orders are seldom heard of except through long-established brokers. The chartering of vessels, too, is something an average millman would hardly care to undertake.

British Columbia let her export trade drop some years ago on account of the enormous demand and the high prices consequent upon building up the prairie towns. All the output of these mills went inland and then could not keep up with the demand. This has now dropped even below normal, but we should be able to take up our export trade again and, between the two, maintain a status that will guard us from suffering so severely from the fluctuations in demand and prices.—Frank Foster, Mainland Lumber and Shingle Company, Limited.

One Answer to the Birch Question

Editor Canada Lumberman: Ottawa, November 27th.

We are in receipt of your letter of recent date, in which you draw our attention to the fact that some Canadian users of hardwoods buy their stock from American wholesale houses instead of from Canadian wholesale firms. Personally, I may say that, all the birch and ash lumber used in our business is Canadian, and bought from Canadian firms, with the exception of ash veneers, as we get better satisfaction in buying the veneers from the other side of the line.

The United States wholesale firm, having a much larger market to sell in, is in a position to buy and hold much larger quantities of stock for his prospective customers, and in the present shortage of good birch stock suitable for saddle trees, we find that the greater amount, dry enough and of the requisite thickness (4-in. and 5-in.) is in the hands of the United States buyer, and cannot be purchased except through his office, even though still in the Canadian lumber yard.

The better grades of red and white American oak we find superior, also their quartered oak. Chestnut, Georgia pine, whitewood, etc., of course, we must import from the other side when called for in the specification.—Estate James Davidson, per G. P. Davidson, manager.

Birch as a Wagon Stock

Editor Canada Lumberman:

I have read carefully and with considerable interest the article in the Canada Lumberman of November 15th regarding the use of birch in wagons. The only paragraph that I can discuss at all is the one in reference to wagon stock.

The author of that paragraph is wrong. None of the Canadian wagon makers are using any better timber than the makers in the United States. They practically use the same, both in the States and in Canada, with one exception perhaps. Some makers in the States use oak hubs and some birch hubs, and the same thing can be said of the Canadian wagon builders. It may be that the author of the article is a little mixed or does not know the difference between

a standard wagon and a cheap farm truck. There are concerns in the States making a low-wheeled handy farm truck, and in these there is no oak in the gearing and even in the wheels in some cases. They do not use oak spokes. They all use oak rims. It may be this wagon that the author has in his mind. There are a few of these made in Canada and they are made largely of maple and birch.—Wagon Maker.

Are We Alive to Our Opportunities?

Editor Canada Lumberman: Vancouver, B.C., Nov. 23rd.

In the last two issues of the Canada Lumberman you have given some pretty plain and appropriate talks to lumbermen, which, I am sure, will be read and appreciated by many. Any one who reads those articles, and who gives proper thought to the study of the subject can readily see that there is something lacking; and if we were fully alive to the position which we try to occupy we would not leave it to the editor to lay these facts bare, but would be first to unearth them ourselves, and thus make such comment unnecessary.

The editor, having found it incumbent upon him to take the matter up and discuss it, however, treated the subject with a great deal more modesty than might have been done, and yet he showed us quite clearly that there are other people, handling competitive lines, who are more alert, and perhaps better qualified to perform their function than we are to perform ours. Altogether they are better men—in a business way, at least—than we are. Now the nice feature in the editor's commentary on the situation is that he did not come out flat-footed, as the saying is, and tell us that, but he did lay the matter before us in such a plain and able manner that any of us who had not realized the fact before, would be very stubborn indeed if we refused to realize it now.

Take the matter of the birch lumber used in those saddles: did the saddler go to the United States with his inquiry, or did the American lumber dealer come to him, in his alertness, while we were resting secure in our convictions that patriotism would send the business to us without our having to go after it? Or again, is it not possible that while the American was rushing forward to nail this business we had never given the matter a thought?

Take those ready-made houses: did Great Britain believe that we are incapable of filling such an order, and therefore seek out the Michigan people to do it? Not at all! The Michigan people were thinking while we were sleeping, and they conceived the idea that those houses were just what Great Britain needed. Britain was in a desparate situation with all those homeless people to care for, and the Michigan people were right there with the goods to relieve that situation. What could have been more likely than that they would have gotten an order?

Let us come home to British Columbia, and even down amongst our neighbors to the south if you like, and consider why our shingles are being replaced by other materials for roofing purposes; and what applies to British Columbia will apply elsewhere in the Dominion. Go amongst our mills and manufacturing plants and what percentage of them will you find using shingles for roofing? Now this condition stands out glaringly, and yet it has always been a wonder to the writer why it should be so. No greater talking point could be put into the mouths of our competitors than this, that the manufacturers of shingles will not use them on their own buildings. We know that a certain amount of prejudice against shingles lurks and originates have had it pretty much in their power to dictate to us what we in the offices of insurance companies, and that in days gone by they should use in the construction and covering of our buildings, and this has doubtless been the cause of so much other material having been used in the past. Now, however, seeing that the mills carry their own insurance in most cases, there is no reason that I can see why they should not lead out and show to the world that they believe that lumber and shingles are superior to other materials by the fact that they have tried all others, and have at last settled upon this material.

I recall an incident which came to my notice a while ago. A wholesale house handling heavy hardware was carrying an advertisement setting forth the good qualities of their roofing material, and unadvisedly stated that it was better than shingles. I was present when the representative of that firm called upon a lumber and shingle manufacturer for business, and heard the manager of the shingle manufacturing company tell him that he could not have any business from him while the hardware house continued to "knock" the business in which he was engaged. We admit that the advertisement was ill advised, but when it is stated that every building upon that shingle manufacturer's premises was covered with other roofing than shingles, and that perhaps most of it had been bought from that same hardware house, had they not some reason for believing that they were right?

I believe that with the same amount of care and thought and intelligent energy displayed in the lumber and shingle business as is used in producing, preserving, and placing other materials before the people, shingles, as well as lumber can be made quite safe from a fire risk standpoint, and more adaptable to all climatic conditions, as well as those touching economy and design.—Douglas Fir.

Better Prices for Spruce at Boston

Editor Canada Lumberman: Boston, Mass., December 3rd.

There is little to be said in regard to the market here at present. Business is dull, and the only feature is the sharp advance in spruce schedules—that is, dimension frame lumber for houses. The market price today is $24. It went as low as $22.50. Spruce dimension lumber, long lengths, is scarce; that is, the supply is very small just now, owing to the extremely low prices; also, as it is the end of the season, most of the mills are closing down and there are very few sawing. This has affected the market. It has made a little better price for all classes of eastern spruce. Whereas the market has been irregular, there is no doubt that there is a better tone than there was, in the spruce situation, but there has been no improvement in anything else of which we are aware. There is little change in other prices, but it is difficult to state with any accuracy what some of the prices really are—the market is so unsettled.

We received recently the first inquiries since the war for small amounts of white pine lumber to go to South America. As yet we have not received orders but are in hopes that we may get some small ones. Financial conditions in this country are vastly improved. Under the new system, the surplus reserve in New York shows 170 odd million dollars now. We don't assume that the banks will want to loan all this money, but we assume they will want to loan enough of it to make conditions much better, and we believe it will make an improvement in general business. The lumber business, however, is about the last that would be affected.

Southern pine roofers are selling at the lowest prices within the memory of the younger generation at least, and all southern products are cheap and are affecting everything else. The western coast lumber, such as fir, etc., has been sold very low in New York, and it seems to have had a general bad effect in that market. We have some reason to believe, however, that high freight rates may, to some extent, cut that lumber out for a time. There appears to be an over-stock of most kinds of pine stock in Canada, but we are given to understand, from inquiries which we have made, that the cut is somewhat less this year in the Ottawa Valley. It is somewhere from 70 to 100 million less than last year; that we know. We are afraid that most of the lumber on hand is unsold and it is not moving. We understand many manufacturers will take out much less from the woods this winter, and it would appear to be only a part of prudence to do so.

The advance in spruce in this market may be entirely temporary, but we are in hopes that it will not go quite as low again as this year; that is, on spruce dimension. On boards, there has been no advance, or on anything else except in the way of eastern spruce in the State of Maine, New Brunswick and Nova Scotia,—scantling, timber, etc.; and about all the advance has been confined to dimension stock sawed to given lengths required in house frames.—Shepard & Morse Lumber Company, T. H. Shepard, Treasurer.

A Factor in the Wood Substitute Situation

A very definite illustration of one of the factors which led up to the remarkably successful introduction of substitute materials in the place of wood, is afforded by a letter received by the Canada Lumberman from a prominent Ontario wholesale and retail dealer in lumber, lath, shingles, etc., who also now handles prepared roofing, metal roofing, etc. "We think the time has long gone by," says this lumberman, who does not wish to have his name published, "for trying to recover the trade lost to the metal people. A good number of years ago we wrote to different manufacturers in connection with the poor makes of shingles and other lines that were put out, which enabled metal people to get the thin end of the wedge entered, and we think it is now pretty well driven home. The manufacturers in any of our cases, never answered us. In one way it was none of our business, but we thought, as a matter of courtesy they should have made some reply. We are confronted continually with requests to handle different kinds of goods taking the place of wood, and we are taking agencies, simply because of the persistent efforts put forward by the various manufacturers of these materials, and because of the enquiries coming for them."

Prospective Improvement in B. C. Trade

Mr. H. R. MacMillan, chief of the forest branch of the Lands Department of British Columbia reports that as a result of the war, already a number of enquiries for timber supplies are reaching British Columbia producers. Bids are asked for the supply of 8,000,000 ties to be used on British railways. Hankow, China, which was recently devastated by fire, is in the market for a large quantity of building materials, among which lumber will figure very largely. British bankers made a loan of $50,000,000 to Hankow for rebuilding and it was stipulated that British material should be given the preference in all requirements.

Canadian Operations in the South

Mississippi Hardwood Company, of Jackson, Miss., Closely Allied to Wilson Lumber Company, Toronto—Their Plant and Operations

An interesting article was published in the Canada Lumberman of June 15th, 1913, describing, among other things, the operations of the Wilson Lumber Company of Toronto at Valley Park and Smeades, Miss., where they manufacture extensive quantities of hardwoods. We have pleasure in reproducing, in this issue, three illustrations of the operations of the Mississippi Hardwood Company, Jackson, Miss., a company which, while not run in conjunction with the Wilson Lumber Company, is owned and operated very largely by those who conduct the Wilson Lumber Company's operations. Major R. S. Wilson is president of the Mississippi Hardwood Company; Mr. A. J. Morris, vice-president and general manager, and Mr. S. I. Wilson, secretary and treasurer.

The logging operations shown in one of the illustrations, are at Pickens, Miss., where the company have several thousand acres of fine oak, ash, cypress and poplar. These scenes are typical of most of the hardwood logging operations in the south. The mill, which is located one mile out of Jackson, Miss., has an average capacity of about 35,000 feet per day, producing mostly oak, ash and poplar. The equipment includes an 8-in. single cutting band mill and all the latest additional equipment necessary for its operation, such as edgers, trimmers, etc. It is located on the Illinois Central Railroad and the street cars from Jackson run right out to the company's plant.

In connection with the mill, the company have yarding capacity for about 5,000,000 feet. They make a specialty of poplar and oak and all their poplar is end-racked before sticking, so as to eliminate stain.

Major R. S. Wilson has been conducting lumber manufacturing operations in West Virginia and Kentucky for a number of years and as his timber was becoming rather scarce, he looked about for new limits. Hearing that the mill at Jackson, Miss., was on the market, he negotiated for its purchase and took possession on March 1st, 1914. The mill is a new one, having been built in 1913. Since the new company took possession they have installed several important devices for handling the product more satisfactorily. The output of the mills sold both in the United States and Canada and some of it is exported to Great Britain. The company are also expecting to find a market for some of their product in Australia. Most of the Canadian end of the trade is handled by the Wilson Lumber Company of Toronto.

One of the accompanying illustrations shows the logging yard at the mill and gives an excellent idea of the methods of transport in the south.

Another illustration shows a portion of the logging yard in the limits. As will be seen, the logs are brought to this yard all prepared for loading on to the carriage at the mill. In this case also the transportation is provided by wagons drawn by oxen. Often these yards will contain as much as 400,000 feet of logs, but they are shipped out of the yard at a very rapid rate. This illustration also shows that logging crews employed are nearly all blacks.

Another illustration shows two red oak logs which have just been brought in from the limits to the yard. These two logs were taken from one tree. The butt log, when brought to the mill, cut out

Canadian Operations in the South—Two Fine Red Oak Logs.

75 per cent. firsts and seconds, about 960 feet altogether. The second cut out 90 per cent. firsts and seconds, over 600 feet in all.

Sent to Jail for Burning a Forest

At last what believers in forest conservation have asked for so long has happened—a man has been sent to jail for three months for leaving fire in a forest. Forest protection is as much a moral question as it is a political or administrative question. The public has for a long time believed that stealing a ham or setting fire to a woodshed were crimes for which the perpetrator should be sent to jail, but that to send a man to jail for setting fire to a forest was a cruel and brutal thing to do. This was so, though the burned woodshed might be worth $50 and the burned forest worth $50,000, true also in spite of the fact that homes and even lives might be endangered.

Now it has happened. The Lower Ottawa Forest Protective Association has had a good many men fined for setting fire to their slashings to clear off their farms, contrary to law, at a time which endangered the surrounding forests. But the Association found that many of those fined considered that the more trees burned the more land cleared, and that a fine was a small price to pay for clearing their own farms—no matter what happened to the adjoining forest. It was, therefore, decided to press the matter, and as a result the delinquent was convicted and sent to jail for three months.

We do not present this in any vindictive spirit. We are sorry for the man who has had to go to jail. But if Canadian forests are to be saved somebody had to begin the unpleasant business of teaching men that arson is punishable whether in town or in the forest.—Canadian Forestry Journal.

Canadian Operations in the South—Portion of Mississippi Hardwood Company's Log Yard.

Canadian Operations in the South—Loading Yard of Mississippi Hardwood Lumber Co.

B.C. Export Lumber Trade Analyzed

Causes of Recent Rapid Decline—A Difficult Matter to Remedy—E. J. Palmer's Remarks to Board of Trade

The rapid decline in the export lumber trade of British Columbia, was referred to briefly in a recent report of a meeting of the Victoria, B.C., Board of Trade, at which addresses were delivered by Mr. E. J. Palmer, Chemainus, J. O. Cameron, and H. R. MacMillan, chief forester for British Columbia. Mr. Palmer's remarks at this meeting covered the subject in an interesting and convincing manner, and we have pleasure in reporting them now much more extensively than in our previous issue. His remarks, as given in a letter to the Canada Lumberman, were as follows:—

While the lumber trade of Australia has been steadily increasing, in fact has increased 390 per cent. in the past ten years, the percentage shipped from British Columbia mills has as steadily decreased, until, in 1913, they shipped barely 4 per cent., against 33 per cent. shipped ten years ago.

Australia took, in 1913, 40 per cent. of all the timber exported from California, Oregon, Washington and British Columbia, and we think it should be impressed upon not only our government, but also the public at large, that here is a market which is not dependent upon the Panama Canal, but is an old and ever-growing one, and that every manufacturer in British Columbia is equally interested in securing a large share of this business, and although he may not be in a position to make foreign shipment, still, that much more lumber out of the country will improve his chances in the home market, and with the gradual changes in the methods of doing business, there is no reason why those mills, which at present cannot be classed as foreign mills, should not do some of the trade.

Think for a moment what it would have meant if our mills had secured 50 per cent. of the 238,000,000 ft. which Australia took, instead of 4 per cent.

British Columbia, in 1913, made the following expenditures in the lumber industry:

In wages olone	$11,025,000
Food supplies of operatives only	3,353,000
Mill and logging supplies	1,575,000
Employment of tow boats	800,000
Total	$16,753,000

No doubt the question will be asked, "Why it it that Washington and Oregon enjoy so much greater a share of this trade than British Columbia?" In explanation I would say that the export lumber trade of the Pacific Coast commenced first in San Francisco, and, although the manufacturing has been done in the north, the selling part of the business has remained almost wholly in San Francisco, and it has been so long established there, that it is difficult to divert it. The carrying trade, to a very large extent, is in the hands of Pacific Coast owned vessels, and it is only natural that owners will charter more readily, all things being equal, with fellow merchants in San Francisco, than with us in British Columbia. There are also some expenses they can avoid by loading in the United States instead of Canada, and consequently we find we have to pay 1/3d to 2/6d per M. feet higher freight for a vessel to load in British Columbia than the same vessel will accept to load in Washington or Oregon. This is a most serious handicap and would be neutralized were there a preference between Australia and Canada. There is also the fact that several of the importers in Australia are closely allied, if not branch establishments, of those in San Francisco, and vice versa, consequently the trade flows in that channel. The bulk of the trade, we may explain, is not done direct between the sawmill and the dealer in Australia, but passes through commission houses in San Francisco, who would buy cargoes for Australia in British Columbia, although the price might be the same, if the cargo from British Columbia would not be subject to as much duty on entering Australia as one from Oregon or Washington. Here is an article which Australia wants, and which British Columbia can supply, of as good a quality or perhaps better than our competitors to the south; hence it is eminently an article on which a preference might be negotiated.

How a Preference Would Work Out

The writer is of the opinion that should we be given the preferential duty, it would act the same as the preference we now have in South Africa. Quotations are asked from all the Washington and Oregon mills. If our quotation is the same, they base their price on the Sound quotations. The mills on this side secure the business on account of the 10 per cent. preferential. I do not think a 10 per cent. preferential would help us out to any great extent in Australia, as, while the majority of lumber going to South Africa is handled by sailing vessels, that going to Australia is carried by tramp steamers on time charters, but if we were allowed $1.00, I do not think it would cost the buyers in Australia one cent more for this material, as it would simply be absorbed by brokers and quotations would be made on a base price Puget Sound, which price rules.

There is another thing. Manufacturers in British Columbia cannot produce as cheaply as on the other side of the line. First, the topographical conditions make logging more expensive here; second, adidtional towage; third, duty on machinery. All have their effect on production costs.

I have before me a comparison of labor costs which does away with the argument that Oriental labor is cheap labor. In fact it is the most expensive labor one can employ. It is impossible however, to employ white labor on account of the wage set by the government of $3.00 per day of eight hours, and even then they do not expect to do a day's work, while our competitors on the other side pay $2.50 for ten hours work. I consider that white labor at $2.50 per day, if they will work, is much cheaper than Oriental labor at $1.50.

A comparison of a mill situated about the same as ourselves and belonging to the same company, doing export business on the other side, gives the following:

	Their Mill	Our Mill
Mill labor and expense	1.473	1.836
Yard expense	.642	.887
Shipping	1.012	1.426
Pond expense	.054	.114
Belts and findings	.036	.082
Oils	.024	.072

In our planing mill we have exactly the same machinery, the latest, whereas their labor cost is .374 ours is .553.

The above should do away with the general impression that we have cheaper labor on this side.

I think it is the duty of the Board of Trade, and in fact every one in British Columbia, to impress upon the Provincial Government the necessity or urging upon the Minister of Trade and Commerce, the importance of trying to provide an outlet for the lumber of British Columbia.

The Situation From a Revenue Point of View

Since the Provincial Government had the books of the different companies checked up, with a view to obtaining costs re the adjustment of their royalties, some of them at least, have begun to realize that something will have to be done in the immediate future to provide a revenue. As you are doubtless aware 50 per cent. of the revenue of the Province is directly or indirectly derived from the lumber interests. With these falling off at the rate they are, what will the taxes have to be on the other industries outside the lumber business, in order to produce a revenue sufficient to meet the requirements of the government.

It is the opinion of the writer that with the drawing together of the Empire during the war, the present is an opportune time for the Dominion of Canada to open negotiations for a preferential revision of the tariff in Australia. With this end in view we ask the co-operation of the Board of Trade and the citizens of Victoria in requesting and urging upon both the Provincial and Dominion Governments, the necessity for preferential duty.

Studying Wood Distillation

The State College of Forestry at Syracuse, N.Y., is carrying on careful studies of the wood distillation industry in the State because this industry uses the raw products of the forest closer than any other industry. More complete utilization of the products of the forest means a great deal not only in saving lumber and other kinds of timber for more important uses, but by utilizing closely the tops of trees left in the woods, the forest is left in cleaner condition and, therefore, not so liable to be injured by forest fires. Often all wood, including the bark, is used down to a diameter of one inch.

The chief products of the destructive distillation of wood are charcoal, wood alcohol and acetate of lime. Charcoal is used for gun powder, for fuel, in the manufacture of iron, and for various poultry and animal foods. Acetate of lime is used almost wholly in the dye industries. Wood alcohol is used largely as a solvent and for various chemical purposes. Beech, birch and maple are the best woods for the production of wood distillation products. Heartwood is better than sapwood because it does not contain so large a percentage of moisture. Elm, chestnut and cherry are not desirable woods for the wood distillation industry because they contain too much tannin, gums, etc.

The wood distillation industry began its development about 45 years ago by the making of acetate of lime to be used in the dye industry. Even at the present time much of the acetate of lime produced in this country is being used in Germany in the manufacture of dye stuffs. The College hopes that as a result of the present European war, the manufacture of dye stuffs can be stimulated in this country so that the manufacturers of acetate of lime and other products of destructive distillation may find better markets here.

Forest Policies of Canadian Provinces

Shortcomings of Timber Administration Forcibly Described—Canada Only a Short Distance Along the Road of Economic Management

By H. R. MacMillan, Chief Forester for British Columbia

Editor's Note.—The following extracts are from an interesting address recently prepared for the American Society of Forest Engineers, Washington, D.C. The address was much more extensive, but the chief subjects of interest to our readers which it contained are reproduced.

The individual Canadian is even more interested in the application of principles of forestry to the management of timberlands than is the individual citizen of the United States. The manufacture and marketing of forest products is of greater relative importance in Canada than in the United States. The estimated total value of the forest products of Canada was for the year 1912 $182,300,000, or an annual wealth production of $25.68 per head of population. The total value of the forest products of the United States is, of course, much greater than the total for Canada, being estimated at $1,280,000,000 for the year 1908. Annual wealth production per capita in the United States is therefore only $13.70. The forest as a source of wealth and a support of industries is almost twice as important to the Canadian as to the American.

From the earliest days of settlement the forest has played a very important part in the foreign trade of Canada. In 1913, 12.1 per cent. of the total exports were of forest products, the value for the year being $5.97 per head of population; in the same year in the United States the products of the forest constituted only 6.3 per cent. by value of the total exports fo that country, averaging $1.37 per head of population.

Very little timber is cut from Dominion Forest Reserves. The total cut in 1912 was about 7,000,000 feet, one-half of which was cut by settlers and the other half by timber operators. The total timber revenue of the Forest Reserves was in 1912, $21,000.

After dealing in considerable detail with the Dominion Government's administration of its public lands in the prairie provinces and British Columbia, the address took up a consideration of the separate provinces and their forest administration.

Ontario's Timberland Policy

Ontario is one of the most important forest provinces of Canada. The area of the province is 407,000 square miles, of which 260,000 is fit for no other use than growing timber. A large proportion of the land classed as potentially agricultural land is still covered with forest.

The policy of administering timberlands in Ontario has not changed greatly in thirty years. The lands timbered and non-timbered are administered by a Crown Lands Department, consisting of an office staff, a number of district Crown timber agents, offices employing cruisers, forest rangers with police duties, scalers and fire rangers. The Department employs a Provincial Forester and assistant who have no administrative duties.

All public lands in Ontario are wooded, the stand depending upon the degree to which it has been burned. The public lands are open both to purchase by timber operators and speculators, homesteaders and land purchasers. Neither the settler nor land purchaser is allowed to acquire title to valuable bodies of pine timber.

Settlers and land purchasers are not taking up important areas of timber lands in Ontario. There is no classification of land by the Government to prevent settlers or land purchasers taking up non-agricultural lands to the detriment of the community.

The system of handling public timber is simple. Cutting licenses are sold which entitle the holder to what are apparently perpetual cutting rights over the area purchased upon payment of $5.00 per square mile rental, and a royalty payable when the timber is cut, which varies from fifty cents per cord in the case of pulpwood to $5.00 per thousand on some recent sales of white pine. These licenses are sold by auction, the person willing to pay the highest cash bonus secures the license. There are at present 17,519 square miles of licenses held chiefly for white pine and pulpwood.

The sale of timber on public lands in Ontario is unaccompanied by any thought of the permanent productivity of the forest. No study is being made of the forest lands to learn their productive capacity, no restrictions are placed upon cutting operations to even encourage close utilization or bring about conditions conducive to forest reproduction of any kind. The white pine stands are treated as a mine from which a certain amount of ore is extracted each year. The quantity of pine remaining on Government lands is estimated at 12,000,000,000 board feet. The quantity on licensed lands while unknown is probably at least as great. The quantity of pulpwood remaining is enormous. No forest survey has been made of the province.

Forest reserves covering nearly 21,000 square miles have been created. The object is to hold certain valuable bodies of timber for sale, to create recreation parks or perhaps in accordance with the idea which once prevailed in New York State to create a forest "reserve" for the future. The forest reserves receive no administration beyond policing and fire protection.

Ontario was a pioneer in fire protection. At present large sums of money are spent. The Government employs fire rangers on the forest reserves, along railways and on certain public timberlands carrying valuable stands of timber. Five hundred and eighty-five were so employed in 1913 at a cost of $233,000. Holders of timber licenses are required to employ men to protect their licenses and the Government supervises their work. License holders in 1913 employed 350 men. Logged-over lands, thousands of square miles of white pine and other reproduction, on non-agricultural land, secure no protection. The expenditure of money is restricted to the merchantable crop. Studies made by the Commission of Conservation have shown that the province is losing millions of dollars annually by failure to protect the young growth on white pine lands which are even now in the centre of markets. Adjoining a densely settled portion of the province 260 square miles were burned over out of a total area of 2,100 square miles in 1913. The province rarely hires men to fight fires and rarely prosecutes for infractions of the fire law. The annual loss from fire would prove staggering if it were investigated.

The public of Ontario received a direct revenue of $2,127,000 from timber in 1913. The expenditure on the administration and maintenance of this resource was $398,000.

Quebec Evolving a Forest Service

Quebec is now the largest province in Canada. The total area is 707,000 square miles, of which 530,000 square miles is valuable only for the growing of timber.

Almost the same system of public timber lands administration has been followed in Quebec as in Ontario.

Since 1906 a Forest Service has been in process of development in Quebec. Though the forest service has nothing to do with the sale of timberland it performs an important work in the inspection of logging operations. Iicenses issued to timber purchasers by the Crown Lands Department now carry restrictions requiring clean logging and specify diameter limits of 13 inches for pine, 12 inches for spruce, hemlock, maple and birch and 8 inches for balsam and swamp spruce, below which trees may not be cut. Though these diameter limits are the same for each species over the province and are based upon insufficient data they indicate a desire on the part of the government to handle the timberlands in such a manner as to increase their productivity. There are no regulations requiring slash disposal.

No general reconnaissance of the forest is being undertaken. Some work of an exploratory nature is in charge by the Forest Service. The government has not yet interested itself in the comparatively large areas of timber under private ownership.

Forest fire protection in Quebec except along railroads is practically confined to timber at present merchantable. The holders of timber licenses are required by law to patrol their holdings at their own expense; 514 men were so employed in 1913. The government spends $24,000 a year on a general supervision of fire protection. This amount is, of course, hopelessly inadequate. The public lands have suffered and still suffer terribly from fires. Fire protection is under the control of a special branch of forest protection.

The more important license holders have formed co-operative fire protective associations, and are working out very effective plans for fire protection, putting in trails, telephones, lookouts, and protecting all timber under their jurisdiction.

Several large pulp and paper companies in Quebec are undertaking forest management on their holdings, making forest studies, cutting with a view to a future crop and making experimental plantations.

The forest revenue of Quebec for the year 1913 was $1,500,000. The expenditure on forests was $122,000.

Timber Exploration Far Advanced in New Brunswick

In New Brunswick the principles followed in the administration of the remaining lands are much the same as in the provinces already discussed. The exploitation of timber has, however, gone further. White pine, once plentiful, has been cut out and the lumber industry now depends on spruce. Practically the whole of the merchantable timber has been taken up by holders of perpetual licenses to cut, which cover 10,147 square miles. 280,000,000 board feet of timber were cut from Crown lands in 1913. The rental per year for timber licenses is $8.00 per square mile. The royalty on timber varies from $1.00 per thousand for hemlock to $1.50 for spruce, pine, tamarack and cedar.

It is felt by the government that the quantity of timber cut each

year from public lands is in excess of its annual growth. No studies have been made however, to determine this fact.

There has been no forest survey or reconnaissance of the province. A law has been enacted by the Legislature providing that such a survey shall be completed by 1917. It has not yet been begun.

The regulations under which licenses to cut are issued require that all slash shall be lopped, that stumps be cut low, logs cut to a 5-inch limit in the tops and that no spruce or pine trees be cut which will not make a log sixteen feet long, nine inches in diameter at the top. This top diameter limit is reduced to seven inches for balsam. No supervision is provided beyond that of the scalers, of whom there are about 29 for the whole area of Crown lands, and who are responsible as well for all prevention of trespass and the scaling of timber.

The forest lands in private ownership are receiving no special care.

Fire protection in New Brunswick is chiefly an auxiliary service dependent upon government and local municipal officials whose duty it is to call out the population and extinguish fires or to arrest offenders. The province appoints a chief fire warden with supervisory duties, but does not maintain a patrol force, nor does it require the holders of timber licenses to protect their timber or contribute towards its protection. The fire loss in the past has been very heavy. The sentiment of the people towards fire protection is excellent.

The forest revenue of New Brunswick was $662,000. The expenditure on the forests was about $35,000, which is not sufficient to keep the forest areas of the province in condition to provide the revenue now received.

Nova Scotia is the one province in Canada where the timberlands have all passed into the hands of private owners. The total area of the province is 21,000 square miles, of which only a little over 4,000 square miles is suitable for other uses than the growing of timber. Only 2,200 square miles still belong to the province. The timber in this area is leased at eighty cents per acre per year.

The government, awake to the depletion of the forest resources, has had an exhaustive survey made of forest conditions. The survey shows at the most twenty years cut of timber still remaining on government and private lands combined. The larger owners are skinning the land. The smaller owners are endeavoring to cut somewhat conservatively. The condition in leases on public lands giving a minimum diameter limit of ten inches has no appreciable effect on the situation.

There are at present no regulations affecting logging on privately owned land.

Fire protection is left to municipal officers. There is no organization maintained by the government, nor any requirement of fire protection affecting private timber owners. The sentiment of the people is good but the forest areas have suffered and still suffer severely.

Legislative provision has been made for a Provincial Forester but none has been appointed.

British Columbia's Forest Survey

The administration of the forest Resources of British Columbia was also described in considerable detail. An account of this, written by Mr. H. R. MacMillan, has already appeared in our columns. One or two points in the address, however, are of new interest. For instance, Mr. MacMillan said that one of the first and most important duties was to ascertain the facts concerning the timber areas of the province. From six to twelve parties have been at work during the past three field seasons. The co-operation of the Dominion Commission of Conservation has been secured. It is expected that the work will be finished in a preliminary manner in another year. At the present time it can only be said that it appears that there is more timber of a merchantable size in British Columbia than has been usually credited to the province. All timber is, of course, being estimated whether in private ownership or not.

Referring to the campaign carried on in British Columbia against waste in logging and the leaving of brush to form a fire hazard, Mr. MacMillan said its effect was being felt slowly. During the three years the Service has been in existence the lumber industry has been so demoralized that progress has been slow. It is not feasible in a democracy to enforce wholesale restrictive regulations when operators are losing money. The aim of the Service in this respect is, gradually, by constant field inspection and the enforcement of simple regulations to raise the standard of logging to that set by the most progressive and careful operators.

A matter which has recently been engaging the very serious attention of the lumber business in British Columbia is the importance of widening the markets. In this connection Mr. MacMillan said that the great necessity of forestry in the west coast is better markets. The Forest Service is now studying this question in co-operation with the lumbermen. It is hoped to add a branch for this feature of the work, but this has been delayed by the war.

The forest revenue for British Columbia in 1913 was about $3,000,000. The expenditure for the same year was about $530,000. The revenue will increase as the timber industry increases. There is every hope that the policy of forest administration recently adopted by the government will result in the forest lands of the province being made annually more productive.

In conclusion Mr. MacMillan said:—Canada has not yet travelled far along the road which she must travel if she is to make the most of her possibilities. That she has started along the road is due largely to the aggressive education campaign carried on by American foresters, a campaign which has spread far beyond the boundaries of the United States and produced profound effects on other countries, and to the friendly spirit of co-operation shown by American foresters, who have time and again placed their services generously at the disposal of Canadians.

Australia's Imports of Lumber, Pulp, Etc.

Imports of wood, raw and manufactured, including furniture, lumber, etc., into Australia from the United States during 1913 were valued at £1,732,438, an increase of £174,523 over those of 1912.

In Victoria (near Melbourne) there are two mills making strawboard from local material and other boards from waste paper. There are also two mills making wrapping paper and one of these has a plant manufacturing cartridge and blotting papers. In New South Wales (near Sydney) there are three mills making wrapping paper, manila board, straw board and varied products from local material, imported pulp and waste paper. The industry is making substantial progress, but there is no statistical information available respecting the value of the output.

On expert authority, it is estimated that the Australian paper mills will require in 1915 over 3,500 tons of sulphite (not mechanical) pulp, in unbleached and bleached sheets, about 32 inches by 26 inches, packed in bales weighing about 3½ cwts. (382 pounds). The unbleached pulp is used in the manufacture of brown wrapping paper which is protected by a customs duty of £4 10s. per ton when of United Kingdom manufacture, and £5 ($21.90 to $24.33) per ton of $2,240 pounds when imported from other countries. The bleached pulp is required for making strong cartridge and other papers. The unbleached sheets are shipped from Europe with merely a rough protection of the same material bound with wire. Bleached sheets come similarly packed with the addition of a strong hessian covering to ensure its arrival in a cleanly condition. If samples and prices of wood pulp, upon the basis of c.i.f. and e. Melbourne and Sydney, are forwarded they will be promptly brought under the notice of the importing mills.

Reduction in Western Woods Operations

A despatch from Winnipeg states that a large reduction in woods operations in Western Canada is certain to take place during the present winter. Practically no work, it says, will be done this winter by the numerous mills in the mountain district. On the Pacific Coast very few of the mills are at work at the present time. In Manitoba, Saskatchewan and in northwestern Ontario, comparatively few men will be sent into the woods, according to present expectations. The Prince Albert Lumber Company, which under normal circumstances would have from 1,000 to 1,200 men at work this winter, will open two or three camps with about 200 men. The Rainy River Lumber Company, which, under ordinary circumstances would have from 2,000 to 2,500 men at work, will have about 400. The Red River Lumber Company has large stocks on hand and will not employ any men during the winter months in the woods. The portion of Canada which is likely to be affected chiefly by the demand which will arise on the termination of the war, consists of the provinces of Nova Scotia, New Brunswick, Quebec and Northern Ontario. It is stated that the mills of Nova Scotia and New Brunswick are working overtime now preparing orders for Great Britain and getting ready for the demand which will occur later.

New Zealand's Lumber Imports

The United States Consul General at Auckland, New Zealand, reports that most of the laths and shingles used in New Zealand come from Canada and the United States, which furnished 2,852,600 and 5,659,791 respectively during last year. These pay a duty of 49 cents a thousand. Hewn logs come almost entirely from Australia, which sent last year 13,118,697 superficial feet. These are duty free. Sawn and undressed timber comes almost entirely from Australia and the United States. The former sent in 1913, 14,922,896 and the latter 11,701,22 8superficial feet.

The importance of a preferential tariff in Australia, for Canada, was discussed in an address delivered recently before the Rotary Club, at Vancouver, by Mr. S. S. Raphael, manager of the North Pacific Lumber Company, Barnet, B.C. The lumber industry, Mr. Raphael said, employs more labor, produces more public revenue and is a greater asset to the province of British Columbia than any other industry. Mr. Raphael asked for the support of the Rotary Club in the movement initiated by British Columbia lumbermen to obtain a preferential tariff in Australia.

The Settler and His Pulpwood

Contributed specially to the Canada Lumberman by a Northern Woodsman

FIRE CONTROL AND MARKETING COSTS FROM THE HOMESTEADERS POINT OF VIEW. PART I.

"Its an ill wind which blows no one any good" is a trite saying, the truth of which the settlers of Northern Ontario, and especially those along the line of the Transcontinental Railway, are beginning to realize at the present time. The war, which is causing so much bloodshed, suffering, desolation and sorrow throughout Europe is proving, strange as it may seem, a blessing in disguise to the New Ontario homsteader, and will do much to bring about that which the Provincial Government so much desires, namely, the conversion of the existing vast timber areas into fertile agricultural land.

In previous years the settlers along the Transcontinental Railway, each holding 150 acres of land thickly covered with magnificent spruce and balsam, have as a general rule, scoffed at the idea of disposing of this material for pulpwood purposes. A few of them tried it, but the verdict was almost invariably "It doesn't pay"; in fact one or two of their number who went into the business on a fairly ambitious scale, found themselves, at the end of the season, with a balance on the wrong side. So the average settler preferred each fall and winter to chop down the timber on the few acres of land which he is required to clear annually under the homestead regulations, and set fire to it the following spring and summer. Thus, not only did large quantities of pulpwood go up in smoke, but it is safe to say that many of the fires started in this way ate their way beyond the limits of the particular homestead on which they originated and, before the summer was out, had been responsible for some of the big bush fires which have caused so much damage in the north country in recent years.

Broadly speaking, the complaint of the settler that it "didn't pay" was correct. This was due rather to defective transportation facilities than to any other cause. The best price hitherto offered along the Transcontinental Railway has been $3.75 f.o.b. Cochrane. For those holding homsteads in the immediate vicinity of that town there is a small profit in pulpwood at that price, but much of the land close to the town is held by men who are not actual settlers, or residents on the land, but professional men and storekeepers, who, after paying for labor, would receive little or nothing in the way of profit, and certainly not sufficient to warrant the trouble it would entail. For the actual settler—the man who not only lives on the land, but is clearing it and chopping the timber with his own hands, how does the price of $3.75 per cord work out? It little more than pays his wages (and poor wages at that) leaving him practically nothing for the value of his pulpwood, which he has usually regarded as a fairly valuable asset, which would help to meet the cost of clearing his land.

If he lives a few miles east or west of Cochrane he has to reckon with the railway contractors, who have been constructing the Transcontinental Railway and who continue to run trains irregularly over the line, pending the taking over of the undertaking by the G. T. P. or other concern. As an example of the charges demanded by these contractors, it may be mentioned that the settler living six miles out from Cochrane has to pay six dollars for a car of pulpwood into that town. Roughly speaking 45 cents of the $3.75 is eaten up in this short haul. Settlers living still further out have to pay higher proportionately, the six dollars per car being the minimum charge. Very few settlers at the present time own their own teams, but those who are thus favored charge their less fortunate brethren at the rate of 75 cents a cord where the distance is from half to three-quarters of a mile from the track up to a dollar and $1.20 a cord where the distance is a mile and a-half or a trifle more. The charge may seem high at first blush, but the cost of keeping horses is very high until sufficient land is under cultivation to bring the prices of hay and corn down. To load on the car at the siding the usual price paid is twenty-five cents a cord. Thus the settler living six miles from Cochrane and a mile and a-half north or south of the track has to meet the following expenses before he can get his pulpwood into town:—

	Per Cord
Hauling to track	$1.20
Transportation to Cochrane	.45
Loading on car	.25
Total	$1.90

This leaves $1.85 for labor and the value of the pulpwood. The price paid throughout the district is $1.50 a cord for cutting the pulpwood, so that the settler receives for the value of his pulpwood thirty-five cents a cord, out of which he has to allow for contingencies and a certain amount of culls. Now that the snow is fairly deep, and with so much undergrowth it is a good man who can cut a cord a day. The average settler cannot cut that amount, so that in the end he is making meagre wages and receiving practically nothing for his pulpwood.

Such has been the general outlook in this district in the past. Prices have not advanced and yet since the outbreak of the war nearly every settler has been busy cutting pulpwood and is unusually interested in the work. Why? The only answer to the question seems to be that rightly or wrongly he thinks that the increased demand for pulpwood which the war has brought about, will result in a corresponding increase in the price, and he is, so to speak, busy trying to "make hay before the sun shines." He may be disappointed, but in any case it is to be hoped that the experiment will teach him that even at a small profit it is better to sell his spruce and balsam, which he has to cut down in any event, rather than burn it, as has been the general practice in the past.

(To be continued.)

Seeking Substitutes for Spruce

Pulp and paper men in Montreal have been much interested in an announcement from Washington, published in the daily papers, to the effect that the United States Government wood pulp laboratory at Wausau, Wis., is making experiments with a view to finding a substitute for spruce in the making of wood pulp for newsprint. Experiments along the same lines are being made in the Canadian Government laboratory at Montreal, as Canada has immense supplies of other timber, which might be utilized for the purpose if a suitable treatment could be discovered. It is pointed out that with the increasing consumption of newsprint in Canada, together with the ever-increasing demand from the United States, it will sooner or later be necessary to utilize other woods. The newspaper with a circulation of 60,000 of 20 pages every day uses the product of four acres of forest per diem. When the figure is multiplied by the great number of papers printed on this continent, it will be seen that the drain on forests is enormous. —Paper Trade Journal.

Price vs. Chicoutimi Pulp Company Now in Supreme Court

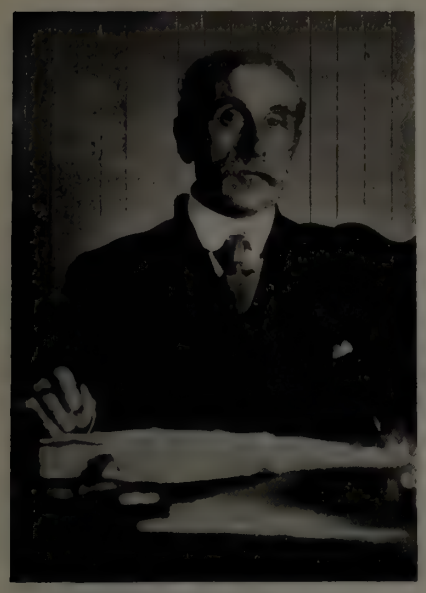
In the Supreme Court at Ottawa an appeal has been heard in the case of Price vs. the Chicoutimi Pulp Company, which has been before the Provincial courts of Quebec since 1904. Disputes extending over a long period of time occurred between the Price Company and the respondents in regard to the ownership of a strip of land in the basin formed by the confluence of the Chicoutimi and Saguenay Rivers. The respondents obtained special legislation from the Quebec Legislature in 1904, vesting in them the possession of the strip of land in question. They alleged that the appellant then wrote letters which were published in the Quebec Chronicle and the Montreal Gazette and Star accusing the respondents of having obtained the legislation in question in order to secure a title, without giving an opportunity to the Price Company to vindicate a title before the courts. The respondents brought action for damage from the Appellant for slander of title and libel on the company's character as a business concern. At the trial before Dorion, J., and a jury the finding was in favor of the present apellants without damages to the present respondents. The action was accordingly dismissed. An appeal was brought by the present respondents and a majority of the court of King's Bench ordered a new trial on the ground that the charge of the trial judge was misleading. The appellant now asks to have this order for a new trial set aside and the judgment at the trial restored on the grounds that the findings of the jury were supported by the evidence, that the statements in the letters were substantially true, that the subject matter was of public inerest and the letters a fair commen and privileged on account of the special interest of the apellant.

Exports From St. John

Something new in the lumber trade of the port of St. John, N.B., was the recent purchase of 1,000,000 feet of spruce lumber in Maine to be brought by rail to St. John and shipped to the English market. Local shippers have in times past bought some Maine lumber and shipped it from Bangor, but this is probably the first time the product of Maine mills has been hauled to St. John for shipment. The shippers say that they could get a good deal more New England spruce if tonnage were available to take it to the other side.

The timber industry represents 37 per cent. of the annual production of wealth in British Columbia.

Death of Mr. A. H. Hilyard, Dalhousie, N.B.



Late A. H. Hilyard, Dalhousie, N. B.

We regret to report the sudden death, on December 3rd, of Mr. A. H. Hilyard, manager of the Dalhousie Lumber Company, Dalhousie, N.B., one of the best known lumber manufacturers in Eastern Canada. Death was the result of an attack of pneumonia. The late Mr. A. H. Hilyard, who occupied the position of vice-president and general manager of the Dalhousie Lumber Company, Limited, had been connected with the lumbering industry for about thirty years. He went to Dalhousie from St. John, N.B., in 1903, when the Dalhousie Lumber Company first started operations, having bought out the business of Mr. Geo. Moffatt. About 1906 the plant of the Dalhousie Lumber Company was destroyed by fire. An up-to-date mill in every particular, with a capacity of over 25,000,000 feet per year of long lumber was erected a little later. The company also operate a shingle mill at Dalhousie and turn out a large quantity of pulp wood.

The late Mr. A. H. Hilyard was also a director of the St. Maurice Lumber Company, with which he had been connected for many years. He was fifty-six years of age.

Death of Thos. Charlton, North Tonawanda, N.Y.

Thomas Charlton, a well-known lumberman of North Tonawanda, N.Y., died at his home on November 29, after a long illness, aged 75 years. He had been in the lumber business from his boyhood. He was born in Ellicottville, N.Y., and located in Lyndoch, Ont., in 1868. In the following year he engaged in the lumber business with his brother. They bought 300,000 acres of timber land near Collingwood, on Georgian Bay, Canada, and timber has been cut from this tract ever since. Some years after the tract was purchased a mill was erected by the brothers on Thompson Street, North Tonawanda, and Mr. Charlton made that city his home in 1890. His brother, Hon. John Charlton, formerly of Lyndoch, Ont., was for years a prominent member of the Canadian Parliament at Ottawa. Thomas Charlton was a prominent citizen of North Tonawanda and was active in the affairs of the North Presbyterian Church, of which he was an elder. He leaves a wife and six children and is also survived by two brothers, Hon. W. A. Charlton, Toronto, and Geo. Charlton, Los Angeles, and two sisters.

Lawrence Page, a contractor for the Gres Falls Lumber, Pulp and Paper Company, Three Rivers, Que., lost his life by drowning in the lake of Seven Islands, in the Shawinigan district, above Three Rivers, late in November. Mr. Page and three other men, guides and helpers, were in a canoe which was pierced by heavy ice during a strong gale.

Concrete Ties Unsatisfactory

The chief engineer of the Chicago & Alton Railroad has written to the assistant superintendent of forestry of the Canadian Pacific Railway a letter regarding his experience with concrete ties which is partly quoted in a recent issue of the Canadian Forestry Journal:

"There were sixty concrete ties placed in the tracks in October, 1903. They were ballasted with stone, where they had good drainage and were kept in good surface. In 1906 twelve concrete ties were taken out; in 1911, thirty-two; in 1912, 10, and 1913, six. These ties were taken out on account of crushing and breaking down under the rail, thus being unsafe to remain in the track. Ties were constructed of cement, iron girder and oak block. There were two blocks of concrete 7 inches thick, 9 inches wide and 3 feet long. There was an iron girder that ran through the blocks that was 2 inches thick and 2 inches wide; there was an oak block 3 inches thick and 10 inches wide and 24 inches long set on top of the concrete tie to use for cushioning the rail and to spike rail. There was a wooden plug in the concrete to hold the spike in place.

"These ties weighed about 450 pounds, and when track was surfaced the ballast had to be dug out from between the ties. If this was not done the rail would lift up and ties would stay in ballast on account of their weight. When track heaved slightly in the winter it was caused to become slightly uneven. The ties under the heavy part of the track would crush and break, and this left the track unsafe. We were compelled to place oak track ties between the concrete ties to hold track to gauge. After the six years' test I have concluded that concrete ties of this make are a failure."

Of What Variety is Ontario Birch?

Editor Canada Lumberman:— Guelph, Ont., December 2.

Will you kindly give us a definition of black birch? We were always under the impression that the birch which grew in Parry Sound district and around there was known as black birch, but evidently, according to the architects we are not correct, so will you kindly enlighten us as to just where we are wrong.—Robert Stewart Limited.

The best authority we know of on such matters is the book on American Trees, written by the late Henry H. Gibson, of Chicago, and published by the Hardwood Record, it says:—"Sweet birch is known by that name in many localities, but in others as black birch, cherry birch, river birch, mahogany birch and mountain mahogany. Its range extends from Newfoundland to northwestern Ontario. . . . Difficulties are encountered in assigning sweet birch its individual place in the industrial world. As a tree it is well known, but that is not the case when its lumber goes to market. The sweet birch log goes into the sawmill, but when the lumber goes out at the other end of the mill, it is often simply birch, having lost the adjective 'sweet' somewhere in the operation. The reason is that sweet birch and yellow birch, quite distinct in the forest, are often mixed and become one, to all intents and purposes, when they reach the market. That is not always the case, but it frequently is. Something depends on the region. The yellow birch's range is more extensive, and in areas where it is abundant, and sweet birch is not, it prevails in the lumber markets. But south and southeast of the great lakes, as well as in the northeastern parts of the country, the two species mingle, and they are apt to go to market simply as birch. The woods may be distinguished by a microscopic examination, but the ordinary observer would make many mistakes if he attempted to tell one from the other.

"The two woods are different in several physical properties. Both are heavy, but sweet birch weighs 47.47 pounds per cubic foot, while yellow birch weighs only 40.84 pounds, according to tests averaged by Sargent. Yellow birch rates a little above the other in breaking strength. Both are very stiff, but yellow birch rates superior. In most respects the two woods are put to similar uses—flooring, interior finish, furniture—but for some purposes sweet birch is preferred. It is substituted oftener for cherry and mahogany, and for that reason is known as cherry birch or mahogany birch. Its color makes the substitution easy, and the appearance of the grain, with a little doctoring with stains and fillers, helps in the deception. The buyer may be deceived as to the exact kind of wood he is getting, but he is not cheated in the quality. Birch is substituted where strength is required, as in the rails of beds, the frames of sofas, davenports, large chairs, and certain parts of large musical instruments. It is much stronger, and fully as hard as cherry or mahogany, and as its appearance is so much like them, the article is actually better on account of the substitution. Sweet birch is largely employed for various parts of vehicle manufacture, particularly for wagon hubs and frames for automobiles. It is also much used in the manufacture of sleds, boats and handles."

This subject is an interesting one upon which the Canada Lumberman would be glad to publish the views of some of its readers.

New Import Invoice Issued by United States

A new form of consular invoice is required of all importers on and after December 1. The important feature of the new invoice is that it is to state the price paid for the imported article and the person or firm from whom it was purchased abroad.

The new consular invoice was required under the new tariff act, and also by a proclamation issued by the President some time ago. Under these circumstances the Treasury Department promulgated a form of consular invoice which is to require the stating of the purchase price and the person from whom purchased. The importers objected to having the new requirement put into effect immediately, and consequently the use of the invoice was postponed for three months. Owing to the European war the importers requested a further postponement of the invoice, and it was delayed again for thirty days.

With the approach of December 1 the importers again filed a request upon the Treasury Department to postpone the use of the new invoice for thirty days more. The Treasury Department, however, is unwilling to delay the matter further. In the beginning the customs authorities have decided to be lenient with the importers in this matter. If the consular invoice cannot be presented in the form required after December 1, the importers will be permitted to give bond for the invoice, to be presented at a later date.

The Department of Trade and Commerce, Ottawa, is in receipt of a communication from a firm in Manchester, Eng., who state their willingness to represent firms in Canada manufacturing metal and wooden goods, such as small staircase fittings, window and door frames, furniture, etc. The war has brought about a demand for such goods, as well as other kinds of Canadian woods. Those interested may obtain the name and address of the firm in question on application to the Department of Trade and Commerce, Ottawa.

B. C. Shingle Industry Stirred Up

Competition of Patent Roofings to be Fought—Will Co-operate with U. S. Movement Against Substitutes

A meeting of the Shingle Association of British Columbia was held in the association room of the lumber manufacturers' association at Vancouver recently. An interested and representative number of manufacturers were present to discuss the problem now confronting all lumber and shingle manufacturers, that of combating the "War Against Wood." Most of the time was devoted to the discussion of this subject. British Columbia shingle manufacturers have been taking interest in this matter for some time and have had a local paint manufacturer experimenting with the manufacture of a fire-resisting paint for shingles.

Mr. A. Cotton, the chairman, introduced Mr. H. H. Welch, manager of the British American Paint Company, of Vancouver, who had samples of a non-inflammable paint for shingles which his company is prepared to manufacture. Mr. Welch demonstrated that this paint in liquid state would not ignite. He said it was an asbestos compound and an emulsion paint. Mr. Welch believed that this paint was as near perfection in a practical paint for cedar shingles for commercial purposes as they would be able to get. Cedar shingles painted or dipped with this paint are not fireproof, but they have very strong fire-resisting qualities. He felt sure the paint would answer the purpose for which it was gotten up and stated that it would sell for 75 cents per imperial gallon. He said an imperial gallon will cover 200 square feet one coat. It was noted that among the shingles painted with this paint which he exhibited the vertical grain shingles absorbed the paint and took it much better than the slash grain. Mr. Welch stated that the paint would not affect the nails and that the colors were much faster and the life greater than that of creosote stains.

Following Mr. Welch a representative of the American Lumberman outlined the plans for offsetting the extravagant claims and the activities of the substitute manufacturers to injure the shingle business. He announced a preliminary meeting called by J. E. Rhodes, secretary-manager of the National Lumber Manufacturers' Association, to be held at the Hotel La Salle, Chicago, December 17, for the purpose of arranging a program and date for a general meeting of all of the lumber interests to be held during January, when it is proposed to form an organization, composed of retailers, wholesalers and manufacturers of lumber and shingles and others directly interested in the business, to carry on a campaign of education and combat the unjust inroads of substitute manufacturers.

To show how the tendency toward unjust legislation is being brought home to manufacturers, J. M. Allen, secretary of the shingle association, read a letter from a shingle salesman, who was present at a retail yard in Massachusetts when a load of shingles which he had sold was being unloaded at the yard. The salesman attempted to sell a repeat order to the dealer on the strength of the excellent quality of the shingles, but the dealer replied that he would not have as much use for shingles in the future, because of ordinances being passed restricting their use.

Chairman Cotton, commenting on the subject, briefly said: "This certainly is a very vital question to shingle manufacturers. If the enemies of shingles succeed in getting a law passed in Massachusetts prohibiting their use as a roof covering, such a law will not only hurt our business in Massachusetts, but it is apt to become a contagious disease unless checked early."

H. J. Mackin, sales manager for the Canadian Western Lumber Company, said he thought it necessary that the association take action as soon as it can intelligently do so. He suggested that the association should go on record as being in full accord with the movement for a meeting in Chicago and the organization of a bureau to handle the subject. He said the British Columbia Government, being the largest timber owner in the province, would more than likely be interested and be willing to support an organization of this kind.

Secretary Allen pointed out that the cities and towns in the United States which are taking or making steps for such radical action in regard to wood construction and shingle roofs were doing so largely because they had had only one side of the proposition put up to them. He believed that much more data could be secured by an organization of the kind proposed; and such information given to the public and to authorities would give them the other side of the question that they are not getting now and would disprove many false claims made by the enemies of shingles.

The consensus of opinion at the meeting was that whatever British Columbia manufacturers did they were anxious to co-operate and work along the same line as the manufacturers of Washington. H. J. Mackin moved that a committee be appointed to take whatever action is necessary and that this committee get in touch with and co-operate with manufacturers in Washington and notify Secretary Rhodes' office in Chicago that they favor the general outline of the proposed organization there, and that when satisfactory details have been worked out by that organization the shingle agency of British Columbia will gladly contribute financial support.

H. Davidson, manager of the Hastings Shingle Manufacturing Company, Vancouver, B.C., in supporting the motion said he was not entirely carried away by reports of the progress being made by the enemies of shingles, because he believes in the end people will have to come back to the good old cedar shingle roof. However, he said, in the meantime while the reform wave is on the business will be very badly crippled and greatly injured by the false statements of the manufacturers of substitute material. The motion prevailed and the following committee was appointed by the chair: S. J. Black, Hastings Shingle Manufacturing Company; H. A. Stoltze, Stoltze Manufacturing Company; C. J. Cutler, Coast Central Mill Company; H. J. Mackin, Canadian Western Lumber Company.

Output of Northern Pine Association Mills

The October report on northern pine production and shipments to the Northern Pine Manufacturers' Association represents only thirty-seven mills, compared with forty-five that reported for October of last year. Their shipments of lumber were 72,965,776 feet, compared with 147,180,343 feet reported by forty-five mills last year, a decrease of 74,214,567 feet or 50.4 per cent. This brought the total for ten months up to 739,244,118 feet, compared with 1,271,772,312 feet for the same months last year, a decrease of 532,528,194 feet or 41.9 per cent. The shipments of lath for October were 18,203,950, compared with 35,893,040 last year, and for ten months they were 231,953,513, compared with 350,491,025 for the same months last year. The same mills reported an October production of 97,389,169 feet, compared with 150,856,715 feet last year, a decrease of 53,467,546 feet or 35.4 per cent. The ten months' record of production was 877,779,202 feet, compared with 1,249,177,984 feet for the same months last year, a decrease of 371,398,782 feet or 29.8 per cent. Lath production was 24,315,250 for October, compared with 39,332,314 last year, and 211,981,153 for the ten months, compared with 326,974,307 last year.

The saving of pulpwood, and the relief of the unemployed situation in northern parts of the province, are the two motives behind the recent announcement of the Ontario Government that at the next session of the Legislature it will extend for a few months the permit given to licensees of pulpwood to export their surplus product. This is the explanation of the Prime Minister, who pointed out recently that it is only in districts where there is no local market that exportation will be permitted.

An example is to be found at Port Arthur, Ont., where there are no mills, but where there is considerable wood. If the licensees were compelled to ship the wood to the Soo, or the nearest mill, they would lose all profit, whereas, if they are permitted to ship it over the American border they will provide work for the unemployed and save the timber at the same time. "There are districts in the north," Mr. Hearst added, "where much timber has fallen this autumn, or where it has been partly burned over. This wood would be wasted if not cut soon. Our action will save the wood and at the same time will provide work for hundreds of men. We are providing, however, that the demands of all Ontario mills must be met before any pulpwood is exported to the United States." The step on the part of the Government is merely an enlargement of the bill which was put through during the last session of the Legislature, and which, by throwing open pulpwood to the American market, was designed to save much fallen timber in the north.

The original prohibition of the exportation of all pulpwood in the province dates back to legislation enacted by the Liberal Government, the aim being to keep its manufacture in the province and to give work to Ontario citizens. Mr. Hearst's statement is that there will not be any cutting in upon the work done locally, seeing that the Ontario mills must first be satisfied, and since thre are not enough local mills to prevent much of the timber going to waste. In the districts where the wastage is about to occur, he adds, there is hardly enough wood to warrant any manufacturer going to the huge outlay of putting in a plant, which might easily cost a million dollars. Before a manufacturer will establish a paper or pulp mill, he must be assured that the district will offer him material for twenty or thirty years, which is not the case in the localities where the waste is now facing the province.

In order to aid in outlining details of the work which it is to do next year, the American Forestry Association has invited leading foresters throughout the country to attend its annual meeting in New York City on Monday, January 11th, at the assembly room of the Merchants' Association of New York in the Woolworth Building. The meeting is for the purpose of discussing the best service the Association can render to various phases of forestry, lumbering and the paper and pulp trade.

A great deal of the oak used on the Pacific Coast comes from the eastern part of Asia.

Successful Fire Prevention in B. C.

Forest Branch Kept Down the Destruction in Spite of the Past Season Being a Very Bad One

The fire season in British Columbia, during 1914, was, as regards dry weather and hazard, the worst for many years. Old inhabitants say that there was not another so dry summer this century, nor in fact since the 80's. The expenditure in fire-fighting was very heavy but justified, for, considering the very large number of fires and the extraordinary hazardous conditions, the amount of merchantable timber and other property destroyed is remarkably small—much smaller than in the Pacific States where the fire season was also very bad.

Figures so far available are given below. It should be remembered these are, as yet, only approximate; the final figures will probably exceed these somewhat.

Total number of fires over 1,500, of which over 400 cost money to fight. Total cost of fire-fighting over $150,000.

Total area burned over—over 350,000 acres, of which over 250,000 acres was old burn or slash; over 50,000 acres was valuable second growth; over 20,000 acres was merchantable timber; over 30,000 acres was range land.

Over 70 million feet board measure, merchantable timber destroyed, of which one-fifth is estimated to be salvageable.

Over 400 miles of fire trail were built in fighting fires during the summer.

An outstanding feature of the fire season was the valuable co-operation given to the forest officers by the people at large. It is doubtful if, anywhere else in Canada, there exists so close and effective a co-operation in forest protection as in British Columbia. One reason for this is, that British Columbia is so universally forested and the utilization of those forests so important to her, that their fate does and always will vitally concern a very large part of her population and her industries. The railway, mining, irrigation, power, lumber, etc., companies are all more or less dependent on the forests and forest products for their existence and operation. They show their appreciation of this by the keen interest they manifest in fire protection and the ready assistance they give the forest officers.

It was shown that the only way to make logging or other slash really safe is to burn it under control during not too dry weather. Otherwise the slash is a constant hazard during dry weather and, sooner or later, it results in an expensive and often destructive fire.

The permit system again proved its great value and necessity. During August, and the first week of September, in the southern part of the Province at least, permits were cancelled and no burning allowed in, or adjacent to, the forests, except under the strictest safeguards. Were it not for this control by the Forest Branch, fire protection would be almost impossible.

Quite a number of prosecutions were made for violation of the fire law and convictions secured. The policy followed is to deal leniently with the unknowing offender, but to make examples of the wilful lawbreaker.

In spite of the bad fire season the Forest Branch was able to do a considerable amount of permanent improvement work during the summer, in extension chiefly of last year's projects. The telephone line up the Columbia River from Revelstoke was completed to Big Bend, or Boat encampment, opposite the mouth of the Canal River, the total distance now being 120 miles. Another line which connects some of the Island to the north of the Gulf of Georgia was extended, the total length now being 65 miles. Still another line was built 20 miles up the Upper Kootenay River above Canal Flats. Over 75 miles of trail have been constructed in different parts of the Province. A number of cabins, boat houses, lookout stations and tool caches have been built.

The total force of the Forest Branch of British Columbia during the height of the fire season in August, 1914, was over 500 of whom nearly 350 were employed solely in fire protection. In addition were about 25 officials as chiefs of police in municipalities, construction foremen, etc., who were appointed and acted as forest guards without pay for the Forest Branch.

On the railways under Dominion Charter, as the C. P. R.; G. T. P.; G. N. R.; about 50 special fire patrolmen were employed by the railways besides the hundreds of section men, etc., a part of whose duties is fire protection. As officers of the Board of Railway Commissioners for Canada, the officers of the B. C. Forest Branch supervise fire protection on the railways.

On the railways as the C. N. P., and P. G. E.; under Provincial Charter the Forest Officers, by virtue of the B. C. Forest Act, have even closer control of fire protection, and here the patrolmen are appointed by the Forest Branch, the cost being recovered from the railroad at the end of the season.

The Dominion Forestry Branch, Crown Timber Branch, and Dominion Parks Branch employ 50 to 75 rangers and guards in the Dominion Railway Belt during the summer.

A number of private forest guards are employed in different parts of the Province by owners of large bodies of valuable timber.

Altogether in midsummer the B. C. Forest Branch and other forest protective organizations employed over 500 men on special protection work. Altogether there were in the Province over 1,000 whose duties were in whole or in part fire protection.

Value of Fire Wind Forecasts

If you can hurdle this title, which sounds like one of these psychology-of-business talks given by some college professor whose business experience consists of buying cream for the study cat, you will probably find in this little screed something that applies to the selling of sash, doors and blinds and lumber and such like on the road. A man may know all there is to know about how a door is stuck together, from the slicing of the veneer to the clamping of stiles and rails and the application of the shellac, or he may know all about the making of lumber from swamping a tote-road to stacking it in a yard, but unless he has personality his salesmanship lacks the final punch to put it over and is no better than the salesmanship of a thousand other men who try to make the retailer and the factory buyer purchase his product.

Personality is the flavoring in the cake. It is the thing that makes your selling talk sound different from the selling talk of the army of knights of the grip who visit the retail lumber yard and the factory office. Personality is being different from the ordinary run. The salesman is inclined to forget sometimes that he is only one of many, that he is an individual in an army of order solicitors. Once in a while he wakes up to the fact. It was such a salesman who wrote the house that there were seven salesmen just ahead of him and that he thought he would better change his route. And the house wired back: "Keep moving; there may be seven salesmen ahead of you, but there are seventy right behind you."

Of course most men realize that they have the competition of other salesmen in their own line. No lumber salesman is foolish enough to have the idea that he is the only man selling lumber on that division of that particular railroad. The buyer does not let him forget the presence of competition even if the salesman were disposed to do so. The buyer always has a price to flash or some other souvenir of some previous salesman's visit. But the salesman generally overlooks the competition of the man who is seling calendars or soliciting advertising in a county directory or giving away a set of encyclopaedias bound in calf with a year's subscription to the Weekly Hash. Yet they are all competitors of his—taking his customer's time and out for his cutsomer's money.

Losing Money at the Sander Unnecessarily

I considered myself an A No. 1 man when it came to sanders. My eight years as a sander operator settled that for me, I thought. The company thought so too, I guess, for they put me in charge of all their sanding. But I now know that I lost regularly as much for them as my job was worth.

It came about this way. We often had pretty big runs of pitchy pine and butternut to sand. Regularly this stuff would come out showing marks which had to be dressed over by hand. The boss didn't know whether to blame the machine or me, so after it kept up, in spite of everything I did, he inquired around and as soon as he found out that another company was having this trouble he laid it to the machine, and that let me out.

But I kept looking for the trouble anyway, because it didn't look natural to me that one piece would sand where another couldn't be made to without tearing out the paper and catching every little while. The machine had it on me for some time, but I finally got back to the trouble, and it was this way: Pitchy pine and butternut are about the greasiest of all woods, and after a little run would grease up the feed rolls so that they would slide over the stock without pushing it through. I would think my pressure was too light and would make the mistake of setting the rolls down too hard. This not only caused marked stock, but wore out the paper twice too fast, and caused a heavy strain on all the working parts and that was hard on the bearings and bed alignment. I now get rid of all this trouble and expense by cleaning the rolls in time.

Lots of men have this same trouble through a different cause. They make the mistake of oiling up while running. The oil spatters and is thrown over the rolls by the oscillators, so that the rolls become too greasy to grip the stock. The same happens, of course, if the stock itself has become oily or if pieces of unequal thickness are run.

This all goes to show, in my opinion, that too many firms are needlessly putting up with occasional defective runs, and are too easily satisfied with the service their machines are giving, because they don't know that such faults lie with the operators and not with the machines.—Berlin Quality.

Interesting Facts About Quebec's Forests

In the Canada Lumberman of December 1st we published a short reference to the statistical year book which has been issued by Quebec Province. The following is a more complete reproduction of some of the interesting facts which it contains about the provincial forests.

According to the census of 1901, lumbering throughout Canada gave employment to about 70,000 persons, Quebec's share being about 20,000. But, inasmuch as certain lumbering operations are classified under the head of manufactures, this number is certainly too low. It has been ascertained that, in 1912, the cutting of timber on limits in the province of Quebec employed 17,600 men, while about 5,000 worked in private forests, so that the number of men who work in the woods every winter may be put down at 22,000 at least.

The forests of the province may be divided into five classes, according to their tenure: (a) Private forests, 6,000,000 acres; (b) forests leased as timber limits, 44,500,000 acres; (c) forests on lots under location ticket, 1,300,000 acres; (d) township forest reserves, 200,000 acres; (e) forests not in timber limits, 78,000,000 acres; total, 130,000,000 acres.

(a) Private forests.—These 6,000,000 acres come from the old seigniories, lands sold to settlers by the government or granted to railways in aid of their construction.

The total value of these stands is about $25,000,000. It is rather difficult to estimate the revenue derived from them owing to lack of information, but it is a well-known fact that maples produce yearly $700,000 worth of sugar and syrup; that farmers sell annually at least 500,000 cords of pulpwood worth on an average $2.00 standing, so that the total revenue from the private forests, adding to the above the value of the firewood cut is at least $3,000,000 per annum.

So far no restriction has been imposed on these operations and on the disposal of the wood for export.

(b) Forests leased as timber limits.—This class comprises all forests usually called "timber limits," leased to various license-holders at sundry periods. The limits are exclusively leased by auction after a thirty days' notice. In 1868, there were 19,000 square miles under license; from 1868 to 1906, 51,138 square miles were leased as timber limits. The government has not so leased any lands since 1906, but owing to the sale of lots of land to settlers, the area of the limits is now reduced to about 68,800 square miles.

From 1867 to 1913, the forests under license brought in the following amounts to the province: (a) ground-rents, $6,484,536; (b) bonuses, $3,260,611; (c) transfer fees, $290,039; (d) royalties or dues on timber cut, $24,779,854; (e) interest on suspense accounts, penalties for illegal cutting, fire-tax, $713,882; making a total of $35,528,924. The revenue now exceeds $1,500,000 per annum.

(c) Forests on lots under location ticket.—Every year the government sells to settlers lots of land containing 100 acres on an average and usually well timbered.

(d) Township forest reserves.—Since 1911, the Forest Service has devoted its attention to setting apart the uncultivable vacant lands in certain townships to form forest reserves. They are destined to supply timber to the inhabitants of the neighboring villages.

(e) Forests not in timber limits.—These extend beyond those under license and also lie in the basin of the St. Lawrence as well as in that of Hudson Bay. No cutting has ever been done on those vast territories, but fire, storms, insects and fungi cause great damage every year. Moreover, the growth in volume of the trees is very slow as in all virgin forests. To the Forest Service has been assigned the duty of making an inventory of them so that they may gradually be utilized as the country's needs require.

The forests of the province contain approximately the following:

50 billion feet, board measure, of white and red pine, worth	$200,000,000
125 billion feet, board measure, of spruce and balsam fir, worth	250,000,000
100 billion feet, board measure of pulpwood, worth	100,000,000
35 billion feet, board measure, of hard wood, birch, maple, etc., worth	25,000,000
20 billion feet, board measure, of cedar, worth	25,000,000
	$600,000,000

The Forest Service of the Province of Quebec, as at present constituted, has charge of the exploration of the unsurveyed territory of the Province of Quebec, the classification of soils, the supervision of lumbering operations on Crown lands, reforestation and other technical work of the department in connection with forests.

The present staff consists of the chief forestry engineer, his assistant, 2 civil engineers, 13 forestry engineers, 60 forest-rangers and 14 cullers. In addition, the students of the forestry school are employed in technical forestry work during the summer season.

The yearly legislative appropriation for the Forest Service is $100,000.

The total amount collected from 1867 to 1913 in connection with lumbering on forests under license, was $35,528,923. Out of this total $24,779,854, or 69.7 per cent., came from stumpage dues; $6,484,536 or 18.1 per cent., from ground-rents, and $3,260,611, or 9.2 per cent., from timber limit sales; the remainder, amounting to 3 per cent. only of the total, came from transfer fees, interest, penalties and fire-tax.

The total sums so collected every year grew pretty steadily with a few slight fluctuations, especially between 1905 and 1909. From $195,115 in 1867 it has risen to $1,510,171 in 1913.

Miscellaneous News of Interest to Lumbermen

The late Charles Miller, lumberman, of St. John, N.B., left an estate valued at $411,000.

A careful estimate that has been recently prepared shows that 195 saw mills in the states of Oregon and Washington are running with an average output of 41 per cent. of their capacity.

The will of the late John Manuel, lumberman, which was filed for probate at Ottawa recently disposed of an estate of $2,188,000, over one-half of which goes to his brother James Manuel, of Ottawa.

It is reported at Ottawa that negotiations for closer trade relations between Canada and Australia have been re-opened and that there s a good prospect of reciprocity being completed before the winter is over.

As many different kinds of trees are cut in New York for lumber as in any other state. There are about eight softwoods or conifers and about fifty different kinds of hardwoods or broadleaf trees cut for commercial purposes.

The mild weather at St. John, N.B., has made it possible for the sawmills to carry on their operations much later than usual, affording the owners an opportunity of getting their logs out of the booms before the ice sets in.

A flagpole 230 feet long, 4 feet in diameter at the butt end, and 1 foot in diameter at the small end was taken from Vancouver, B.C., recently by the Royal Mail steamer Merionethshire to London to be erected over the Colonial Office.

One of the most expensive woods used regularly in an established industry in the United States is boxwood, the favorite material for wood engraving. It has been quoted at four cents a cubic inch, and about $1,300 by the thousand board feet.

A report from Thessalon, Ont., states that the large lumber mills in that district have 18 or 20 camps in the country north of Thessalon and that between 2,500 and 3,000 men are being employed thereby. The outlook for local trade is excellent.

According to a report in the Timber Trades Journal of London England, one result of the recent visit of the Commission from England to Canada to enquire into the supply of pit prop timber, is that large orders for these goods will be received by New Brunswick lumbermen.

Berth C in the Mississaga Reserve north of Lake Huron, Ont., which was recently bought from the government by Mr. J. J. McFadden, of Renfrew, Ont., has been sold to E. B. Foss & Company, of Bay City, Mich. The berth contains a large stand of excellent white pine.

In northern Idaho and Montana, which had many fires during the past summer, 35 per cent. of the fires on national forests were caused by railroads, 26 per cent. by lightning, and 10 per cent. by campers. The remainder were due to brush burning and other miscellaneous or unknown causes.

The Hocken Lumber Company, Otter Lake Station, Ont., have commenced operations at their winter mill. The plant is being run night and day and is turning out 30,000 feet per day, principally hemlock. The company report that their operations in the woods this winter will be nearly as large as last winter.

"The Labor Gazette of the Dominion Department of Labor shows the index price of lumber in Canada to be 182.8 in September, 1914, as against 183.8 in August, 1914, and 185.0 in September, 1913, indicating lower price levels. Toronto lumber dealers look for a large curtailment of operation in the woods this winter."

Mr. H. K. Stonehouse, Springhill, N.S., is sending a considerable number of men into the woods between Springhill and Springhill Junction and intends to carry on extensive operations this winter. Mr. Lambert Taylor, of Collingwood, N.S., is moving his mill into the woods and will saw Mr. Stonehouse's logs.

Judgment has been given for the plaintiff in the action brought by Edgar Bellvance against P. W. Fau Vel and T. Sharpe, who operate a shingle mill at Burnaby Lake, B. C. The plaintiff was injured while running a machine and one of the chief points at issue was whether the mill could be classed as a factory. To do this, it is necessary that five men should be working, both day and night staffs counted.

"Besides supplying the London box and case trades with spruce, Canada is, for that industry, providing nails which before the war in great part came from Germany. Pitwood for the mines, spruce for box factories, and nails are only a few of the multifarious items of

supply that the Dominion can send us, not only in times of stress, but afterwards, too. Like grain and produce, all will be welcome."—Timber Trades Journal.

The Canadian Pulp & Paper Association recently held an executive meeting at Montreal at which Mr. Roy Campbell was appointed secretary, to fill the vacancy resulting from the resignation of Mr. H. T. Meldrum. Mr. Campbell is the editor of the Pulp & Paper Magazine of Canada, whose offices are at Montreal. The work of gathering statistics regarding the pulp and paper industry in Canada will be vigorously pursued.

The Stearns Salt & Lumber Company, Ludington, Mich., report that the Stearns interests of Ludington expended for labor in Ludington during the first ten months of 1914 no less than $427,254.96, or an increase of nearly $70,000 over a like period for 1913. The company are justly proud of this rather excellent showing in spite of the general industrial and commercial depression. The increase, they state, was the result of developing and handling new business.

The Dominion Board of Railway Commissioners recently heard the claim made by representatives of the Canadian Manufacturers' Association, the Canadian Lumbermen's Association and others, that inter-switching rates in Canada are higher than those in the United States, from $8 to $12 per car in Toronto and Montreal, they asserted, as compared with an average of from $5 to $9 in the United States cities. The case was adjourned to come up again a little later.

The steamship Briardene arrived at Parrsboro, N.S., from Barcelona, Spain, on December 1st, to load deals for an English port. Burpee L. Tucker is supplying the cargo. The Briardene is the first steamship that ever commenced loading at Parrsboro in December, and the fact of her being so late is due in part to the temporary suspension of deal shipments caused by the outbreak of the war, and in part by the present high prices of lumber in the United States.

The New York State College of Forestry at Syracuse University announces the establishment of an Eastern Forest Products Laboratory to be located in the State Forestry Building which will be ready for occupancy in the summer of 1915. In the State Forestry Building, for which the State appropriated a quarter of a million dollars, there will be nearly 14,000 square feet given up to experimental laboratories outside of laboratories especially for educational work with students.

According to a St. John, N.B., recruiting officer who had expected to get a good many recruits from men who ordinarily go to the lumber woods for the winter, the demand for men in the woods will be even larger for the coming winter than it was last winter. His statement is confirmed by dealers in lumbermen's supplies, who say that they are getting large orders from the operators, especially in the northern part of the Province, although the firms who operate on the St. John River say they do not expect the cut in their territory to be any larger than it was last year.

Reports from St. John, N.B., indicate that, contrary to the earlier reports, the output of logs in New Brunswick during the present winter will be extensive. When the war commenced, lumber manufacturers considered seriously the advisability of curtailing their operations. When the Baltic ports were closed, however, and it became difficult to secure lumber in Great Britain from the usual European sources, the trade in New Brunswick began to improve. Large crews of men, it is now reported, will operate in the woods of New Brunswick this winter and the cut will be well up to the average.

Australia Studying Our Pulp and Paper Industry

Mr. W. E. Shoobridge is now on an official visit to Canada with a view of increasing trade between the Dominion and Australia and Tasmania, having been commissioned by the respective Australasian Governments to interview the Canadian Government and business men. He is particularly desirous of obtaining information as to the pulp and paper industries, which it is proposed to develop in Tasmania, that island possessing some fine water powers which can be turned to account in the manufacture of pulp and paper. Mr. Shoobridge has obtained the services of a Canadian pulp and paper expert who will accompany his to Tasmania, and report on the possibilities of establishing the industries. Mr. Shoobridge has visited some of our mills, including those at Jonquieres and Chicoutimi, P.Q.

Ontario's Timber Revenue Lower

Returns of revenue in the Department of Lands, Forests and Mines for the fiscal year just closed show a total income of $2 341,198. This is $458,000 less than the estimate presented to the House last session by the Provincial Treasurer, but much better than was expected a few months ago. The revenue for 1912-13 was $2,793,809. Hon. W. H. Hearst, in making the figures public, said that the chief falling off was from timber, from which he expected at the time the estimate was made $2,000,000, but the revenue in this branch only reached $1,698,445, a shortage of $301,555. The remainder of the amount is distributed between lands and mines.

An Arkansas Soft Pine Booklet

The Arkansas Soft Pine Association have published an attractive illustrated booklet entitled "Arkansas Soft Pine—An Architectural Aid." The booklet is handsomely illustrated in colors and will unquestionably create a favorable opinion among those who secure copies. If placed in the hands of contractors and architects this booklet is likely to become a very valuable trade building factor. The illustrations show scenes in the woods, at the mills, etc., and also include pictures of buildings with Arkansas soft pine used for many purposes. An interesting set of illustrations represents eight panels of Arkansas soft pine stained in very effective colors. The rich effect secured by the use of curly Arkansas soft pine is also well illustrated.

The Salesman's Personality

When you have called on a lumber yard or a carriage factory what kind of an impression did you leave? Were you just one of that army of order-takers who stream through the office of the ordinary business man? Has he a conglomerate picture of salesmen as a class in which you do not stick out any more prominently than the calendar salesman or the subscription solicitor Did your talk all sound alike? Or do you remain in his memory after the name and the game of the man with the county directory were forgoten? If so you have Personality.

Personality doesn't mean being a good fellow and making an impression that way, although that is better personality than no personality at all. It means to be so well-informed, so earnest, so interesting, that your visit is recalled with pleasure and profit. It means to be Yourself, to be different from the ordinary run. It means to be original and resourceful. It means to talk like a salesman and not like an advertising tract. It means to stick in the memory as a man rather than as one of a class.

The personality of the salesman is the blood of any business. It makes his sawmill an instituion instead of just a sawmill. It makes the buyer realize he is doing business with people instead of with an inanimate something in the backwoods. It is the factor that establishes the permanent and friendly relation between man and man and makes the buyer stick to you in good times and bad. It is the thing that lifts you out of the ordinary run and makes you an aid instead of an interruption, makes you a man that the buyer is glad to see instead of anxious to avoid.

As to how you are to acquire personality if you haven't it, heaven only knows. It is something that has to be born in you to some extent. Poets, they say, are born not made. It is a good deal the same way with salesmen. Yet there never was a salesman who couldn't make himself a better salesman if he set about it. Don't be satisfied to be a sing-song salesman. Be a salesman with personality.—American Lumberman.

A report from Oxford, N.S., states that the outlook for lumbering operations in that neighborhood during the coming winter is excellent. Mr. T. C. Glennie is arranging to take out a large cut, probably in excess of his last year's operations. Mr. C. O. Black, whose timber limits are located in the River Philip Valley is also planning large operations. King Bros., who operate on limits on Portaupique, Colchester County, have a large number of men in the woods. The present indications are that operations will not be curtailed in any way on account of the war.

Boxmakers in the United States use more than four and a half billion feet of lumber each year or more than one tenth of the entire lumber cut of the country.

The annual cut of British Columbia timber is approximately two billion feet. There are 420 mills and 790 logging camps in the province, employing about 60,000 men.

Canada's trade in forest products for the month of October, 1914, was valued at $4,935,715. During October, 1913, and 1912, the values were $4,505,067 and $5,783,014 respectively. During the twelve months ending with October, the total values were as follows:—1914, $42,621,760; 1913, $42,749,039; 1912, $43,353,926.

The Wilson Lumber & Box Company, North Tonawanda, N.Y., has closed a contract for furnishing thirty car loads of box shooks for shipment to Europe. The stock will be converted into boxes to be used principally for conveying ammunition for use during the war.

A contribution to the war relief fund of special value with the onward march of winter has been made by the Canadian Western Lumber Company, Fraser Mills, B.C., in the shape of two carloads of wood, and more when needed is promised.

Settlement of Accounts With Slow Debtors

The last month of the year might be fitly termed the "Judgment Day" of the year for the man in business. He looks forward to it with mingled feelings of suspense and anxiety. The employer wonders how he is coming out and the employee, how he is going into the next year. Both yard owner and manager are thinking more intently of things that didn't bother them so much during the summer. During the rest of the year they took chances that December would prove whether their judgment was good or not. Some have justified their acceptance of them, and others they are beginning to worry about. Most every dealer, too, has some accounts that for various reasons he has refrained from pushing for collection as much as he now sees he should have done. He has let them go and put them off till the last of the year when he promised himself to round them up and take measures to make the parties pay. It is these accounts that are "hanging fire" that causes the dealer the unusual amount of worry at this time and gives occasion for him to think that if he had only known at the time what he knows now the parties would not have gotten into him as they did.

It is too late for such regrets now and yet such experiences are in a way beneficial if they will operate to make the dealer more cautious in the future in the avoidance of making bad accounts. He will learn also the folly of giving credit to a man and then inquiring about him afterwards. This way of doing business is what makes this month the season of regrets, also the seeding time for a crop of good resolutions that may or may not come to fruition. This selling goods to a man on time and then afterward trying to find out whether a mistake has been made or not is a universal fault among business men. Even the most careful dealer will do this in cases where the applicant for credit is of a strong, pleasing personality and "puts up" a line of convincing talk that hypnotizes him at the time and he yields to its influence by granting the request. But afterward when away from the spell of the man's personal influence his judgment and caution begin to act and prompt him to investigate the basis for the man's credit.

I'll warrant the assertion that nine-tenths of the bad accounts on the books of the lumber dealers today were made through their failing to investigate first before giving the credit and this is the principal reason why I have so often advocated the advisability of every dealer having an index system of listing the ratings of every man in the town and locality. Then if he has this to consult every time a new customer applies for credit he has the man's rating to influence his judgment and counteract the lot of smooth talk that is being given him. If a dealer has this rating system and has been governed by it during the year, it is a sure thing that he won't have a lot of uncertain accounts looming up before him in December to worry him about their collection. And if you have any at all it will be because you have in those cases let the bars down between the restraint and your own weakness. In other words, it's your own fault with no good business reason to excuse it. If any of you are up against the problem of collecting a lot of tough accounts between now and when you will get them in let it lead you to make up your minds to go to work and have such a rating system as I have mentioned in order that you may be protected in future from your own errors of judgment and weakness of will power. It is considerable of a job I know from experience, but you have the whole winter with its many dull days to do it in. If you can get one more of the other business men in the town to give you their experiences with parties you know little about it will lessen your work as well as make it more complete in its information.

A Credit Clearing House

There should be some organization among business men in every town that would be as a clearing house of credit experience and some one man in charge of it to keep the system corrected up to date. A few of the larger towns in the country have adopted this system and I have yet to hear of any town where they had it that it was not a success. But it is something that is hard to start in a small town for there are not enough in number of business men so that it would pay to employ a secretary. Nevertheless, it is practicable for any merchant to have a rating system of his own and as I've said, there are to be found one or more of others whom he could get to go in with him and each having the same list and the ratings they could assist each other in adding to and keeping it corrected. If three men in a town will do this it is bound to have the effect to induce others to join in and want the benefit of the others' credit experiences. Another effect too, it would have. It would bring them together in more cordial business relations and in the course of time there would develop a business association without being organized as a formal body. In such a beginning there is a definite common bond of purpose as a basis whereon to work together because all are interested in knowing who the slow pays and dead beats are in the community.

Two or three business men in a town having a system of this kind for protection and guidance in giving credits would have an additional effect of driving all the undesirables to those places where they are giving credit tin the usual way. When these business men discovered this they would wonder what was the cause of it and when they do they will understand something of what co-operation means.

Now understand me, I am not advocating a combination to prevent certain people from obtaining credit, but simply a system whereby an interchange of credit experiences can be made leaving each one to act according to his own judgment on the information he obtains. It does not bind him from giving credit to a well-known "dead beat" if he chooses to take the chances of getting his pay or of crediting anybody as he sees fit. But he does it with his eyes open after he knows of the experiences of others with the parties. When you come to study the proposition you will find there is nothing in it but what is being done more or less every day among business men in a country town. For instance, a man comes to your office wanting credit for a little lumber. You have had no experience with him. You are in doubt, and you ask him where he has been trading, you call up the storekeeper and ask him what his experience has been with the party. If favorable you give him the credit. If the information is otherwise you use your own judgment. Some times you will meet a business man on the street whom you are friendly with and you get to talking of business conditions. Invariably almost, the subject of collections will come up and one of you will inquire what the other knows of a certain party and his disposition to pay his debts. You freely interchange what you have heard or what your own experience has been in dealing with him. In this way you mutually benefit each other. Now what is the difference between this kind of an interchange and the interchange of information kept on card system? The only difference as I can see is one is systematized and the other is not. If you can derive a benefit from the information that one business man gives you from his experience with credits in the town how much more you can get from the experience of three, four or five others or of all the business men in the place.

Knows from Experience

During the past ten years I have had a good deal of experience with this system of interchange of credit experiences and therefore I feel that I am not assuming too much when I say that I know something of its practical workings and furthermore, I know it can be made a success in any town where it is adopted. I know what you will think when you read this. You would say to me, "Oh, well, things were different there. Conditions in this town are such that it wouldn't work." Yes, that is what everybody says when they hear of anything being a success in another town. We say of an individual who has been successful that he has good luck; that we could do as well if we had had the same chances. The credit business is practically the same in character everywhere and any country town can do what we have done and are doing here.

When I first broached the subject to our business men they said conditions here were such that it could not be made to work. But a few months hammering away at it convinced a few that it would and so we started with eleven members and got one of the justices of the peace to keep the records for us and answer our inquiries over the 'phone. We worked along for three years before we got a membership of forty-two. Then we dug into our pockets for a banquet and invited every business man in town. That brought us in a membership of over one hundred. Since then we have developed in every way for the individual and collective benefit of the whole city of 35,000 inhabitants and have a present membership of 360. I could fill this entire article with what this association has done of a public nature, but that would be unnecessary at this time. I have spoken of the work of this association several times in former articles. A number of men have written me from various parts of the country asking for further details of the system and subsequently I learned that some of them had started the system in their towns and it had proved a success from the beginning.

I thought this was a good time to bring up the subject again because the winter is a propitious time for working up anything of the kind. Business men's thoughts are taken up with credits and collections more at this time than perhaps at any other during the year and are therefore responsive to any project that will assist them in the prevention of making bad accounts. I want to say again before parting with this subject, if it so be that you think it is not feasible to have such a collective clearing house for credit experiences as I have suggested, by all means, get up an index card system of your own. It is not only valuable for keeping tab on the credit records of people in your locality but you can use it also in your selling business. You can circularize the farmers as to their intentions for future building and this and other valuable information you can get in this way, you can make a note of on the individual cards for use in following the inquiries. Now if you go at it and work this out this winter you will have something in the spring that will henceforth serve you as a guide post directing the avoidance of the pitfalls of bad accounts.

Prevention Better Than Cure

If anyone should come to you with the proposition that he would give a heavy bond as a guarantee to protect you from making bad accounts, you would feel willing to pay him a fee of at least one hun-

dred dollars. Some of you no doubt have paid a good portion of this at sundry times to collection agencies and have never gotten any substantial returns for it. Many business men are willing to throw good money after bad in this way, but they wouldn't give a cent towards a proposition that will protect them from the making of bad accounts. The disposition rather is to go to the expense of buying a good lock for the coal house door after the coal has been stolen.

Retail business men as a rule are working continually in the dark with respect to their credit business and they seem by their actions to prefer it to working in the light of a systematic control of it. Go where you will you will hear the same old song about the evils of the credit business. I have heard it sung in varying keys for so long that I have no sympathy for the sinners any more because, from what I know of successful prevention they are themselves to blame, and what is more they know in their own consciousness that this is true. This thing of putting money into lumber and then selling it to a party "on suspicion" and keeping on doing this year after year and then complaining when they get "stuck" or the party is taking his time in paying for it is when you come to look at it in the clear cold light of business sense, the rankest folly.

Don't think for a moment that I am saying this without knowing the meaning of it. I do know it is a folly, because I have felt it to be this by my own experience and I have many a time condemned myself for being guilty of it. I know, of course, there are more or less chances incurred in doing a credit business. Even the most conservative business men will get caught through the intervention of circumstances that could not be foreseen. What I am advocating and urging is the adoption of methods and measures that will reduce the chances of non-payment to the lowest minimum and if the retailers will individually adopt a system of limiting ther credits and have a tabulated list of the credits in their localities to guide them, with the will and courage to enforce it there will be a general relief from the excessive burden of credits they are now carrying and a large reduction in the loss from bad accounts and interest on capital put out on long time business.

Discovering Your Mistakes

It goes without saying that you are all immersed now in the business of collecting and probably discovering some of your mistakes in the giving of credit earlier in the year. You have some accounts that you worked hard to sell the material and now you have got to work harder to collect for it. You have parties owing you that you consider good and who will pay when they get the money. This class of people as a rule are poor collectors themselves of what other people owe them. It won't do for you to rely on their promises, however honest in intention they may be and if you expect to collect from them in the near future you have got to help them to collect their debts. When they come to you and say they can't pay that bill because somebody else is owing them take down the names of those parties and go and see them and ascertain the facts in the case, and if true, urge their paying the man so you can get your money. It is not a bad idea for you to obtain a written order from your debtor on the party that owes him so that he won't have the excuse to make of not liking to pay without an order. If your debtor doesn't want to give such an order it is pretty good evidence that he has some reason back of it that he doesn't care to let you know. He is probably "hard up" and wants that money for more pressing needs and would rather collect it himself and use it for them. A man with a family just before the winter has to consider their wants and with only the money other people are owing him to depend on the pressure of this knowledge is greater on him than the desire to pay the debts he incurred at a time when there was a longer prospect for getting the means to do it. You have got to assist this class of people to collect their debts and get what you can out of it.

The contractors and jobbing mechanics that trade with you and are owing for balances on bills and long drawn out accounts that they have paid a little on here and there at different times are the most annoying and difficult to bring to a "show down" at this time. You dislike to press them very hard and they know it. As long as you only ask them to settle their accounts it is taken as a matter of course, but when you try to "nose around" to find out who is owing them they are apt to resent it and get mad if you press them too hard, and as this threatens the loss of their trade and influence you are naturally inclined to handle them a little gingerly in your efforts to round them up. The most influential contractor who does the largest business with you is immune from the hard pressing you may exert on some of the others. You wouldn't offend him for anything and therefore he in turn is not going to press his best customers very hard. So you have to wait on both him and his customers till the spirit moves them to settle their accounts.

Of course a good deal of these difficulties with this class of your debtors depend somewhat on the way you have allowed them to treat you during the year. If you have educated them to pay their bills for material at the completion of the jobs they will know what to expect at the end of the year. But if you have allowed them to run accounts and pay something on them now and then as they had the money to spare you will have to bear the consequences of such a loose way of doing business. If you have it understood with your contractors and mechanics that if they trade with you they will have to settle for each job, big or little, as soon as it is done it will have the effect of making them more cautious in taking jobs and more energetic in collecting for them. In business you reap as you sow, just as you do in anything else. If you take it for granted that this jobbing fraternity is going to pay you when the work is done without stipulating that they must do so at this time you are going to be disappointed, for they will follow the line of the least resistance in permitting their customers to be as easy with them as you are. There should be a settlement of all unpaid bills on contract jobs before the first of the year, and the owner notified to that effect also. This will have the effect of assisting the contractor in collecting his money. I have frequently had my contractors ask me to "punch up" some man who was holding off in making the payment as agreed on their contracts. They couldn't get any money out of them and wanted me to try my hand at it for them. It may be advisable in some cases when notifying the owner as I have mentioned to also give him to understand that security will be taken by filing a lien if the contractor is not paid within a certain time. This will generally bring them to time. Of course, you won't have to do this with contractors who pay their bills promptly, but as a rule you don't have many of this class.

Success Depends Upon Effort

Collecting this month depends a good deal on the amount of "steam" you put into your efforts. You have got to convince your debtors that you must have the money. No doubt the bulk of your accounts are with the farmers and speaking in a general way the farmers this year, with comparatively few exceptions, have got the means to pay their bills. And when you know that a farmer that owes you has got a lot of grain and other produce stored away on his place it is your own fault if you don't press him hard enough to cause him to market enough to settle his account. When crops are poor there is some excuse for carrying a farmer and going to the bank to borrow money to pay bills for stock, but it certainly is poor business to borrow money to carry on business when your books are loaded with accounts of farmers that have ample means to pay them. It is not so much a question of credit as it is of supineness on the part of the dealer in collecting. When you press a farmer to the point that he says: "Well, if you have got to have it I suppose I'll have to haul in some stuff and get the money for you," you have convinced him that you actually mean what you say when you tell him you need the money.

The fact is, the farmer is intensely individualistic in his way of thinking about such matters. He considers no one else's interests but his own. His thought is that the lumberman is obligated to him for his trade and in turn is under obligations to give him credit and carry him till he gets ready to pay it. He thinks, too, that the lumberman has plenty of money and can afford to carry him and all such talk as "needing money" is merely a matter of form.

You will see in the local papers these days articles of various business men informing those that owe them that they should call and settle their bills by the first of the year as they are needing their money. As a matter of fact such appeals have but little effect in producing the desired results, because the community of debtors have read such notices before and nothing came of it in the way of extreme measures. The principal reason that some men are better collectors than others is because they succeed in convincing those they go out after that they really mean what they say when they tell folks the money has got to come.

The great retail stores in Chicago do a large credit business in the city and suburban towns. Most anyone of good character and references can obtain credit at these stores, but it is understood that bills must be settled by the tenth of every month unless some special arrangement is made otherwise. Statements are sent out the first of the month. If no return is made on this first statement in ten days, a second is sent politely inquiring the reason why. No answer being returned to this, a formal notice is sent that unless remittance is sent by return mail a collector will call at their residence for the payment of the account. This is not intended, nor is it a "bluff," for just so sure as a check is not sent by return mail a collector is put on the trail, and he gets the money at once, or it goes to the law department of the store for more extreme measures.

Here again you may think that this can be done in the city, but it can't be done in the country. The fact is, though, location has but little to do with it. Human nature is the same everywhere, and when people know that they have got to do a thing at a certain time they are going to make extra efforts to prepare for and do it. You have the opportunity this month to make a reputation for yourself in your community as a collector, and next year, when people come to you for credit and you tell them your terms on which they can have it, they will know you really mean business when you tell them that accounts must be paid at the specified time. Think this over and turn over a new leaf in dealing with your credits.

C. H. Ketridge, in the Mississippi Valley Lumberman.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) ($2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted–Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Brothers, Ltd., Toronto, Ont. 7-tf

Lumber Wanted

Hemlock running chiefly 14 ft. and 16 ft. lengths, 1-in. Spruce, Basswood, Birch; also Cedar Posts. Send detailed list giving lowest wholesale prices. Address Box 85, Canada Lumberman, Toronto. 21-24

Birchwood Wanted

5-in. thick, 6-in. wide and up. Must be air dried 1912 cut.

LAMONTAGUE, LIMITED,
338 Notre Dame Street West,
24-t.f. Montreal, Que.

Wanted to Buy

We are in the market for the following good Merchantable Spruce:

100,000 ft. 2-in. x 6-in.
100,000 ft. 2-in. x 8-in.
50,000 ft. 3-in. x 9-in.
50,000 ft. 3-in. x 8-in.
50,000 ft. 2½-in. x 7-in.
25,000 ft. 2½-in. x 6-in.

all 10 ft. and up long. Terms: 75 per cent. cash against B/L. Balance on arrival and inspection. Shipment to be immediately. State price f.o.b. shipping point. Write P. O. Box No. 1595, Montreal. c

For Sale–Lumber

For Sale

400 Spruce Spiles, 60 ft. long, 7 in. tops. Also any quantity Spiles 35 to 50 ft. long. Prompt shipment.

The Northern Lumber Mills, Limited,
21-t.f. North Cobalt, Ont.

For Sale—White Pine Bevel Siding

Either in Idaho White Pine, Silver White Pine or Michigan White Pine. All grades at prices so low that you will be sure to buy. Write us.

American Lumber and Mfg. Company,
22-1 Pittsburgh, Pa.

Dimension Timbers

50 pieces Red Pine, 6 x 10 x 18, $30.00.
20 pieces Red Pine, 8 x 10 x 18, $30.00.
10 pieces Red Pine, 8 x 12 x 20, $32.00.
15 pieces Red Pine, 10 x 12 x 16, $32.00.
30 pieces Cedar, 8 x 8 x 12, $19.00.
30 pieces Cedar, 9 x 9 x 12, $19.00.
20 pieces Cedar, 10 x 10 x 12, $20.00.

Send for full list. Spruce and Yellow Pine also.

South Shore Lumber Company, Limited,
21-24 St. Lambert, P.Q.

Wanted to Sell

One to five million feet of 8 x 8's to 24 x 24's, 12 ft. to 18 ft. long, No. 1 common pine timbers, rough or dressed. To be shipped as fast as cut, approximately four hundred per month.

PERRY-FRASER LUMBER CO., INC.,
23-2 Noxapater, Miss., U.S.A.

Lumber For Sale

200 Pieces 1 x 15 and up 22 ft. Cypress.
375 Pieces 1 x 15 and up 24 ft. Cypress.
Clear for boat building, in stock at Montreal.

GEO. C. GOODFELLOW,
c Montreal, Que.

For Sale

1 car 2 in. Rock Elm, No. 2 and 3 Common.
1 car 2¾ in., 3 in. and 3½ in. Sound Rock Elm Hearts.
1 car 2½ in., 3 in. and 3½ in. Maple, No. 2 Common.
2 cars 2 in. Maple, No. 2 Common.
1 car 2 in. Maple, No. 3 Common.
1 car 1¼ in., 1½ in. Beech, No. 2 Common and Better.
2 cars 1½ in. Beech, No. 1 Com. and Bet.
3 cars 1½ in. Beech, No. 2 Com. and Bet.
30,000 Cedar Posts, 8 ft. long.
1,000 cord 4 ft. Hardwood Slabs.

This stock is dry and in good shipping condition.

WM. PEDWELL, Lumber Merchant,
15-t.f. Owen Sound, Ont.

For Sale–Machinery

Planing Mill Machinery

Purchased modern plant, receiver's sale; also 200 horse automatic engine; bargain price, any machine; write to-day. Baird Machinery Co., 123 Water Street, Pittsburgh, Pa., U.S.A. 24

For Sale

28 36-ft. 600,000 lbs. flat cars.
1 55 ton Locomotive.
1 35 ton Dinkey.
15 25 ton Dinkies.

In first class order, for immediate delivery.

W. FRASER,
21-24 83 Craig St. West, Montreal, Que.

Rebuilt Veneer Machines

We have the following rebuilt Coe veneer lathes and clippers ready for immediate shipment:

Lathe, 50-in. swing, 88-in. knife, 6-in. spindles.
Lathe, 50-in. swing, 64-in. knife, 6-in. spindles.
Lathe, 50-in. swing, 64-in. knife, 5-in. spindles.
Lathe, 42-in. swing, 64-in. knife, 3⅞-in. spindles.
Lathe, 42-in. swing, 52-in. knife, 5-in. spindles.
100-in. power clipper.
88-in. power clipper.
54-in. foot power clipper.

These machines are decided bargains and carry the same guarantee as we give our new ones. Prices on application.

THE COE MANUFACTURING COMPANY,
23t.f. Painesville, Ohio.

Special Woodstock Machines

Latest Types—Like New—Guaranteed. Some examples:

2—12-in. Defiance Patent Automatic Benders.
1—No. 2 Defiance Automatic Rim Strip Equalizer.
1—42-in. Defiance Combined Handle and Spoke Lathe.
2—48-in. Defiance Neckyoke and Singletree Lathes.
3—32-in. Defiance Automatic Spoke Lathes.
2—48-in. Wapakoneta Automatic Spoke Lathes.
2—36-in. Fay & Egan Automatic Spoke Lathes.
1—No. 1 Defiance 18-in. Belt Sander.
1—Defiance Auto Spoke Throat Polisher.
1—18-in. Empire Belt Sander.
5—Sinker-Davis Hoosier Self-feed Rip Saws.
1—No. 110 Fay & Egan Self-feed Rip Saw.
1—No. 2 American Self-feed Rip Saw.
1—30" Whitney Double Surfacer.
1—24-in. Fay & Egan No. 140 Double Surfacer.

Complete list the seventy odd machines ready.

WAYNE MACHINERY CO.,
Fort Wayne, Ind., U. S. A.

We've seven hundred machines in stock at Fort Wayne. Our Wayne list mailed to anyone interested. 24

WOODWORKING MACHINERY FOR SALE: 2 8-in. three side moulders; 3 upright power mortisers; 2 26-in. surface planers; 3 20-in. Ideal pony planers; 1 No. 802 Canada Machinery Corporation two-spindle wood shaper; 1 MacGregor-Gourlay self-feed cut-off saw; 2 Ideal variety saw tables; 1 40-in. MacGregor-Gourlay band saw; 1 20-in. American wood scraper; 1 36-in. double-drum sander. H. W. Petrie, Limited, Toronto, Ont.

Wanted–Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents

WANTED—Position as engineer. Can handle A.C. work. References. R. E. Keech, 412 Pavone Street, Benton Harbor, Mich., U.S.A. 22-1

POSITION WANTED by stenographer and bookkeeper. Young man, stenographer and bookkeeper, desires position with lumber company, with a chance of advancement. One year's business experience, and best of references. Address Lock Box 42, Highland Park Station, Des Moines, Iowa, U.S.A. 22-1

Planing mill man expert in sales, advertising and estimates, with exceptional record for increased business and profits, will be open for new position January 1st. Will guarantee results for 1915 and will make pay contingent upon resutls. Apply Box 108, Canada Lumberman & Woodworker, Toronto. 23-2

Manager or Secretary-Treasurer

Position wanted by married man. Fifteen years' experience in every department of the lumber business. Successful manager of company manufacturing thirty million feet annually. Four years in wholesale and retail business as secretary and manager. Licensed log scaler. Can provide capital and furnish excellent references. Reply to Box 112, Canada Lumberman, Toronto. 24-3

WANTED—Position by young married man who has a general knowledge of the lumber business and who is particularly adapted for the sash and door business. Has had practically four years' experience as buyer. Willing to go almost anywhere and to consider any proposition. Would go to lumber camp or work in mill. Firms with interests in South America, desiring the services of a general man, please consider this. Box 100, Canada Lumberman, Toronto. 22-24

Wanted–Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Practical man to act as superintendent of new plant about to manufacture box shooks. Must have thorough knowledge of the business. Apply Box 109, Canada Lumberman & Woodworker, Toronto. 23t.f.

Business Chances

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Furniture Manufacturers

Lumber dealer, having unlimited quantity of birch, maple and beech, desires to enter into negotiations with Ontario firm of furniture manufacturers who would be willing to change their location. Have no experience, but can procure sufficient capital to develop business. Excellent prospects. Address in first instance to Box 115, Canada Lumberman, Toronto. 24-1

Splendid Chance for Sash and Door Manufacturer

One or two practical planing mill men with a little capital are offered an excellent opportunity to get into business. The property available is an excellent newly-equipped woodworking plant, in Ontario, for turning out sash, doors and millwork. Local capital can be obtained to build up business. Unsurpassed location and shipping facilities. Owner wants to retire from business. Box 116 Canada Lumberman and Woodworker, Toronto. 24-1

In the Supreme Court of Ontario

In the Matter of The Winding-Up Act, being Chapter 144 of the Revised Statutes of Canada and Amending Acts.

And in the Matter of the Dominion Lumber Company, Limited.

Judicial Sale by Public Auction of valuable timber lands, limits and mills situate in the Province of Quebec.

Notice is hereby given that pursuant to the Winding-Up Order made in this matter and bearing date the 9th day of June, 1914, there will be offered for sale with the approbation of Geo. O. Alcorn, Master in Ordinary of the said Court and with the concurrence of the Royal Trust Company, Trustee for bondholders, by Public Auction by Fraser Bros., Auctioneers, at No. 453 St. James Street, Montreal, Quebec, at the hour of 10.30 o'clock in the forenoon on the 30th day of January, A.D. 1915, the following lands and premises and assets in one parcel:—

A.—In the seigniory of Ste. Anne des Monts, in the County of Gaspe, in the Province of Quebec, 1,000 acres more or less of timber lands, together with a duly equipped lumber and shingle mill, having a capacity of 25,000 feet of lumber and 125,000 to 150,000 pieces of shingles every ten hours, also dwellings, storehouses, repair shops, etc., also 289 square miles timber limits in said county held under Government license and numbered 22 to 29, estimated to contain over 350 million feet of saw logs, principally fir, spruce and cedar, and 595,000 cords of spool and pulp wood. Also logs in river estimated at 1,000,000 feet board measure.

B.—Near La Grande Vallee des Monts, in the County of Gaspe, in the Province of Quebec, 54 square miles of timber lands and 100 square miles licensed timber limits (held under Government license and numbered 30, 34 and 35) reported to contain 100 million feet of saw logs and 245,000 cords pulp and spool wood, together with new lumber mill fully equipped and having a capacity of 50,000 to 75,000 feet of lumber every ten hours, also a mill for sawing shingles and railway ties, with a capacity of 125,000 to 150,000 shingles every ten hours and all necessary shanty plant, etc.

The property will be offered for sale subject to a reserved bid fixed by the said Master in Ordinary.

Terms of Sale.—Accepted cheque for $10,000 payable to the Liquidators to be deposited with the Auctioneer by each bidder when making bid. Twenty-five per cent. of purchase price to be paid in cash and balance shall be paid in three equal annual instalments and shall bear interest at the rate of seven per centum per annum, such instalments to be secured to the satisfaction of the Liquidators.

The Purchaser may at his option pay the whole purchase money in cash.

The terms and conditions of sale in all other respects are the standing conditions of sale of the Court so far as applicable.

For further particulars apply to Archibald W. Stevenson, Eastern Townships Bank Building, Montreal, Quebec, Charles A. Millener, Deseronto, Ontario, Frank Denton, K.C., 20 King Street East, Toronto. Liquidators or to Masten, Starr and Spence, 58 Canada Life Building, Toronto, Canada.

Dated at Toronto this 14th day of November, A.D. 1914.

GEO. O. ALCORN,
23-2 Master in Ordinary.

Miscellaneous

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Sales Engineers Wanted

A large firm specializing in the manufacture of motors of all classes desires to secure sales engineers in various parts of Canada. Firms who can carry a stock of motors are preferred. Write stating the territory that you can cover. Box 96, Canada Lumberman, Toronto. 21-24

Electric Lighting Plant

wanted, without power, direct current, capable of supplying 250 to 300 16 c.p. lamps. Must be in first class condition. Name lowest cash price. Correspond with Clarke Bros., Bear River, N.S. 21-24

Ties and Pulpwood For Sale

Advertiser open to take orders for delivery of railway ties and pulpwood in any quantities large or small, to be delivered rail off vessel, upper lake ports. Apply Box 110, Canada Lumberman & Woodworker, Toronto. 23t.f.

Sawing Contract Wanted

Want to secure contract for the sawing of 1,000,000 to 5,000,000 feet of logs. Have No. 1 portable sawmill, fully equipped. Location immaterial.

HUGH BAIRD & COMPANY,
22 1 Markdale, Ont.

Rossed Pulp Wood

I will close a contract immediately for machine Rossed Pulp Wood, 24-in. and 48-in. long, quotations f.o.b. Cochrane, Ont., or at place of delivery. I have the control of a large quantity of pulp wood yearly.

I also have for sale 50,000 ft. of 1-in. dry White Birch.

L. BOIVIN,
23-2 Box 46, Cochrane, Ont.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

BAHAMA ISLANDS

Timber Lands

The Crown is prepared to issue a license for yellow pine lumbering operations on Cocoa Plum Creek Section, a tract containing 13,725 acres situate on the Northern part of the Island of Great Abaco. A considerable portion of this tract is covered with yellow pine timber.

The Crown has also for lease other and smaller tracts of pine land.

Parties interested are invited to apply for further information to The Colonial Secretary, Nassau, Bahamas, W. Indies. 23-24

Condtion of Trade Expansion

In a "Plain Talk on Opportunities for Trade Expansion in South America," Dr. David Kinley, University of Illinois, gives his fellow countrymen some good advice to Canadians. He says:

"There is too much talk of Government initiative in this matter. We cannot build up trade by writing about it or talking about it, or by determining that 'this country' must do business with some other country. Countries do not trade. Business firms and individuals trade. If, therefore, any manufacturer is in earnest about developing trade with South America he must proceed on his own initiative. He should send sensible, responsible agents at once to report upon the conditions under which business can be done. He should find the usual terms of credit, for the conditions and methods of doing business, particularly in granting credit, are not the same in all these countries in all lines of business. These agents should report exactly what articles the people have been accustomed to buy, and what they want in style, quantity, colors, prices, and other details. The manufacturer should then endeavour to meet the wishes of his prospective customers in all respects. All this implies what a recent manufacturer has called a "network of intelligent agencies."

Breakage of Narrow Band Saws

A fruitful cause of narrow band saws breaking—especially with wheels of the old fashioned heavy type—is the over-running by the top wheel of the bottom or driving wheel of the saw and also of the saw itself. When the top saw wheel is running at full speed it necessarily acquires a considerable momentum, and acts somewhat after the fashion of a flywheel; consequently, when the speed of the saw blade is suddenly checked by its entry into the wood as it commences to saw, the acquired momentum of the top wheel not being checked in a like proportion, over-runs the saw and the driving wheel, and creeps, so to speak, up the back of the saw, and consequently buckles or breaks it at the point of resistance, viz., where the saw enters the wood. The remedy for this is to construct the top saw wheel as light as possible—we prefer a built-up steel wheel—make it an absolute balance, mount it elastically, and cover it with a thick band—say ¾ in. of vulcanized India rubber. The bottom saw wheel can also be made, say, one-third heavier than the top wheel, and these arrangements will neutralize to a considerable degree the sudden strain put on the saw at starting, and largely obviate the over-running and breakages above alluded to.—Timber Trades Journal.

Sugar Made From Sawdust

The manufacture of sugar from sawdust is the latest problem to be solved in the effort to find an effective use for that waste product of the mills of the world. The process for manufacturing has been discovered by an English scientist and experiments made during last December go to show that it may yet result in revolutionizing the sugar making industry and at the same time enhance the value of a product that has so far been practically a waste material at all sawmills and especially at those situated in interior sections.

Sacchulose is the name applied to the new product. The results obtained are what are termed "classed processes," in which sawdust is subjected in closed retorts to digestion with a weak sulphuric acid solution and under a pressure of about 100 pounds to the square inch, effective transmusion takes place. Of the resulting product twenty-five per cent. is sugar. The constituent sugar so formed is dextro in part and fermentable to an extent of eighty per cent. The rest is not fermentable.

Large quantities of the product have been actually produced and it is said that arrangements have been made for the establishment of a large factory in England for the further exploitation of the product. According to these reports the manufacture of sugar from sawdust is to become an actual fact in that country, and, if successful, plants will be established in the United States by those interested in the new process. A. Z. Zimmerman, an English scientist, has been making numerous experiments in the feeding of horses and it is announced that increases in weight have been noted ranging from thirty-five to seventy pounds.

According to the same announcement the dust from practically all woods can be used in the manufacture of sugar by this process while that from yellow pine and the various oaks is superior to that from other woods. Further experiments to be made will be watched with much interest by the lumber interests of the United States.—Lumber Trade Journal.

As a result of tests made by the forest service on western woods, the specific gravity based on air dry volume, and the oven dry weight per cubic foot have been determined. It should be understood, however, that the figures given are averages, for the climatic conditions, kind of timber, and other factors enter into the question. For instance, no two pieces of Douglas fir, a cubic foot in size, will weigh just the same. The following figures, therefore, are average estimate:

Kind of wood.	Specific Gravity based on air dry volume.	Oven dry weight per cu. ft. in lbs.
Douglas fir	.46	28.8
Western hemlock	.42	26.3
Amabilis fir	.39	24.4
White fir	.37	23.1
Grand fir	.37	23.1
Sugar pine	.37	23.1
Western yellow pine.	.48	25.8
Redwood	.35	21.9
Sitka spruce	.32	26.0

Tests on Douglas fir show that the best time to ship the wood, if one would decrease his freight bill, is the summer. Green Douglas fir weighs 38 pounds to the cubic foot; in winter, even when air dry, it will weigh 34 pounds, and in summer 32 pounds. If you wish to figure in board feet, 1,000 board feet of rough Douglas fir lumber, shipped green, will weigh 3,200 pounds; the same amount air dried, shipped in winter, will weigh 2,850 pounds, but in summer the same wood, air dried, will weigh only 2,675 pounds. Kiln dried, 1,000 board feet will weigh 2,580 pounds. Thus it may be seen that 1,000 board feet of timber, in summer, weighs 175 pounds less than it does in winter.

If you wish to find the oven dry weight of a 1,000 board feet of any wood, multiply the weight per cubic foot by 83.3. To obtain the kiln dry weight, increase the oven dry weight per 1,000 by 7½ per cent. To obtain the summer air dry weight, increase the oven dry weight by 12 per cent. To get the winter air dry weight, increase the oven dry weight by 18 per cent.; and to get the green weight of most woods, increase the oven dry weight by 30 per cent.

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Eat the meat out of oats and corn and horses get the husk.

RATS ARE DISEASE CARRIERS: ALSO CAUSE FIRES. Device resets itself; always ready; catches daily. Made of galvanized iron; can't get out of order; cheese is used, doing away with poison; 12 rats caught one day in one catcher. One sent any place in U. S. upon receipt of $3. Catcher 10 in. high, for mice only, $1. On account of shipping charges being prepaid, remittance requested with order.

H. D. SWARTS

Inventor and Mfr., Scranton, Pa.

Review of Current Trade Conditions

Ontario

While there is no improvement to report in connection with the lumber trade in Ontario, during the past fortnight, travellers are pretty generally of the opinion that trade has settled down upon a much more satisfactory basis than was expected a month or two ago. Wholesalers report that the volume of trade is sufficient to give everybody a fair amount of business and to relieve practically everybody of the anxiety which they felt in regard to the prospects for the winter season. Latest reports confirm the earlier ones to the effect that the output of logs in Ontario will be greatly reduced this winter. Nevertheless, reassuring statements are frequently received from important firms to the effect that they are not making the extensive reductions that they contemplated at first. This applies especially to the Ottawa Valley district, where operators have become more confident in regard to the business outlook and where the weather conditions have been sufficiently favorable to encourage winter operations on a large scale.

A well-konwn lumber manufacturer in Ontario reports that the cut of logs in the Georgian Bay district this year will not be over 25 per cent. of normal. He also reports that the quantity of logs carried over from last year is quite limited. Speaking of retail trade he has the following to say:—"In the the retail yards, the supply of lumber has been depleted for several months back, to such an extent that many of them are now borrowing from one another, and few yards, if they were favored with an order of a fair sized building, would be able to supply all the stock required without making fresh purchases. In the manufacturers' yards, especially those of the smaller mills, stocks are plentiful. Speculative house building dropped off immediately after the outbreak of the war and consequently all low ends of lumber are no plentiful in manufacturers' hands. The same is true to a large extent throughout the country.

"Referring to the outlook for the trade next year the same manufacturer states that, on account of the benefits to be expected from the new banking system in the United States, trade is likely to become normal in the near future. This will assist the trade in Canada greatly, by reducing the quantity of material coming on to our markets from the United States. Possibly the United States will even require a good percentage of our product. Fifty per cent. of a normal trade next spring would soon show large gaps in stocks in manufacturers' yards in Canada, which would have a very good effect on prices, making them much more uniform. Next fall, with only a slight revival of trade, the situation should once more become quite satistactory."

Bradstreet's in a recent report states that farming vicinities in Ontario have been ordering goods freely of late, but most other localities are buying barely enough to cover their immediate needs.

Eastern Canada

Little or no change is reported in the lumber trade situation at Montreal. The building business is exceptionally quiet, scarcely any new work being commenced. A few good contracts are under consideration, but are not likely to materialize until the spring. Wholesale and retail lumber trade is therefore very quiet and is expected to remain so for the next few months. Navigation has been closed and preliminary figures show that the quantity of lumber exported from Montreal, by the large shippers, was a little over 62,000,000 feet, a decrease of over 29,000,000 feet as compared with last year.

The demand for eastern spruce at Boston is about steady and offerings are light so that prices are firmly maintained, with a base price for dimension of $24. Some improvement is shown in random, the usual quotation for 2 x 3, now being $21. For 2 x 8 $22.50 is the bottom price, and $23 has been obtained. Spruce boards are plentiful and prices are inclined to be weak. Good covering boards 5-in. and up wide, 8-ft. and up long, are bringing $20 to $21. Offerings of shingles at Boston are heavy and the demand from city yards is slow. White cedar extras are selling at $3.35 to $3.45, clears at $2.80 to $2.90 and second clears at $2.55 to $2.65. Red cedar shingles are moving slowly. Stocks of lath are small and quotations are firmer. A few sales of 1⅝-in. for quick delivery are reported at $4.25, while $4.15 is the lowest price. There is not so good a call for 1½-in. as for 1⅝-in., but the price is firm at $3.70 to $3.80. The demand for hardwoods at Boston is spotty.

At New York, the spruce market is quiet, but shows a slight improvement over a month ago. Better trade is looked for after the new year.

At Boston, the lumber trade continues quiet, though the recent sharp advance in spruce dimension frame lumber for houses is held, the market price being $24 now instead of $22.50 a short time ago. Long lengths of spruce dimension lumber are scarce, and prices for all classes of eastern spruce are a little better. A few enquiries for white pine lumber for South America have made an appearance. All southern lumber is cheap and is affecting other values. Spruce boards have not shown any advance.

Great Britain

There has been considerable discussion in Great Britain recently of the apparent abundance of wood supplies, the impression being gathered in some quarters that stocks are too large. The opinion of most of the members of the trade, however, is that abnormal conditions render the present stocks none too plentiful. The consumption of lumber for several months has been extremely heavy and there is every indication of a continuance of this activity. Speculative building may come to an end, but the great variety of uses to which wood is put in ordinary times, added to the extraordinary uses to which it is now being put for temporary shelters, huts, transport work, cheap furniture, box and case making, must more than counterbalance the ordinary demand in times of peace.

Considerable business is still in progress in the spot market at London. Saw millers, yard owners and other large consumers are taking extensive stocks overside and floated goods are also moving rapidly. Arrivals are still heavy, but are not expected to more than balance the withdrawals.

A much improved trade situation is reported from Liverpool. Those who are engaged in the spruce deal trade are still very busy, the demand for government requirements continuing exceptionally strong. The Timber Trades Journal in a recent issue refers to two or three cargoes of spruce deals from New Brunswick and Nova Scotia which were then offering. It was expected that the prices would be very high compared with previous transactions, as freight rates had advanced greatly. Some revival is reported in connection with the timber import trade, Canadian pine being more active.

Trade at Glasgow has been a little more active, both on the spot and forward basis. War office requirements are still responsible for most of the trade. Box making demands continue active and there is a good request for spruce deals. Shipments arriving have sold readily at full prices.

United States

General trade conditions in the United States are improving. It is felt by everybody that industrial conditions are fundamentally sound and the result is that steady improvement has been shown during the last few weeks. The clearing of the financial situation, by the opening of the Federal reserve banks and by the assistance given to the cotton industry is having a marked effect upon the development of confidence. The extensive orders received by American industries from the nations of Europe which are at war, are also important factors in trade improvement. An expert of the Bureau of Foreign and Domestic Commerce has given out an estimate that one year of war in Europe will add $500,000,000 to the foreign commerce of the United States. The only reasons why the export lumber business has not been larger, are that vessels have been scarce and freight rates very high.

At this time of year the lumber trade has ordinarily settled down upon a winter basis. Trade this year, however, will not be by any means dead. Reports from Minneapolis show that building activities have broken all records. St. Paul also has enjoyed a building boom. In the northern States, along the border, however, the cold weather is likely to restrict building operations and reduce trade. In Chicago and other large cities of the middle west, building activity is keeping up and promises to produce a steady demand for all kinds of building stocks throughout the winter. Curtailment in production has enabled the lumber business to hold its own pretty generally and the improved demand of the last two weeks has brought about a few encouraging price advances. Consuming factories are running pretty generally and as most of them have only limited stocks they are buying steadily. Curtailment and the small stocks in the hands of retailers and factories are expected to bring about better prices as soon as conditions become more normal.

An optimistic feeling prevails in connection with northern pine at Minneapolis. Price lists show very little change. Country yards are doing a fair business and are expected to look for new stocks in the near future. Manufacturers in the northwest are continuing their curtailment. Some increase in activity is reported by white pine firms at Buffalo, some of the stock going abroad. Low grades are quiet and the box business is not active. At North Tonawanda, stocks of northern pine are moving steadily into consumers' hands. Manufacturers are busier and building operations are fairly active.

View of Mills in Sarnia.

BUY THE BEST

Retailers and woodworking establishments who like to get A1 NORWAY and WHITE PINE LUMBER always buy their stocks from us because we can ship them on quick notice. It pays to have the goods, but it pays better to "deliver" them.

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Market Correspondence

SPECIAL REPORTS ON CONDITIONS AT HOME AND ABROAD

Montreal Market News—Navigation Closed

Montreal, December 11; (Special to the Canada Lumberman):—Business in the lumber trade is still on the dull side. There is hardly any new work in the building line being commenced, and although some fairly good contracts are pending, it is not likely that a beginning will be made until the spring. The sales of lumber, both by wholesalers and retailers, are therefore of small volume, and this condition is likely to continue during the next two months. Although many wholesalers are still hoping for a satisfactory turnover when the business outlook for the immediate future is not particularly good, the building season opens.

The building permits for last month naturally show a decrease. The value was only $374,710, as compared with $1,293,746 in the corresponding period last year. The value for the year to date, including harbour work, is $17,277,311, as against $25,723,867 last year.

Navigation is now closed, the last boat for Great Britain having left the port. She carried a small amount of lumber, including a little birch. Thus ended one of the poorest years in the history of the port, so far as lumber is concerned—a season full of anxiety for shippers.

The recent activity in the pulp and paper sections is reflected in the September return of the exports from this country. The sales were on a very large scale, all three commodities sharing in the great demand. The exports of both chemical and ground wood pulp were large, and exceeded those of any previous month during this or last year. The table below shows the exports of the three classes:

Month 1913	Chemical Pulp	Mechanical Pulp	News-print
April	$202,110	$143,126	$596,554
May	201,276	234,494	810,575
June	121,199	173,445	874,284
July	218,302	251,284	793,898
August	203,542	276,171	889,645
September	232,835	399,057	941,986
October	233,159	467,878	976,028
November	273,278	357,688	1,037,207
December	311,251	450,030	1,057,817
1914			
January	257,194	265,750	928,223
February	254,250	174,522	1,049,778
March	414,687	259,296	1,432,850
April	258,497	164,494	836,110
May	386,909	189,792	1,092,172
June	347,606	270,990	1,135,283
July	358,170	604,869	1,149,569
August	382,255	164,942	1,108,285
September	480,741	566,217	1,247,780

Montreal Lumber Exports During 1914

The following is a preliminary comparative statement of the exports of lumber from the port of Montreal for the 1913 and 1914 seasons. This does not take into account the shipments made by small shippers, railways and steamship agents, which will be given in a later issue. The past season has been one of the poorest in the history of the trade, the falling off being due mainly to war conditions. Watson & Todd, who in 1913 increased their exports by over a million and a quarter feet, naturally show the largest decrease, they being the most important exporters from the port.

Exporters	1914 Ft. B.M.	1913 Ft. B.M.
Watson & Todd, Limited	26,165,790	34,596,642
R. Cox & Company	11,336,151	18,326,191
W. & J. Sharples	6,296,006	13,571,128
J. Burstall & Company	6,708,937	8,905,256
E. M. Nicholson	5,284,731	7,695,305
Dobell Beckett & Company	2,677,768	3,527,783
E. H. Lemay	3,339,582	3,522,941
Cox, Long & Company	474,818	1,878,741
	62,283,783	92,023,987

Decrease for 1914 season 29,740,204 feet B.M.

S. P. Musson, Son & Company, Barbados, report under date of November 13th as follows: Lumberstuffs.—White pine—There has been no arrival during the fortnight, and the position of the market has strengthened somewhat; first arrival of merchantable should be worth around $34, and second quality $26. Spruce—No receipts in this either, and we value a cargo of good shippers at $27.50. Pitch pine—No arrivals during the fortnight. Shingles—The position is unchanged since our last, stocks are heavy and further supplies are not needed at the moment. Shooks—We note the arrival of 260 bundles by steamer from New York for dealer's account. Wood hoops—The S.S. "Saba" from London brought 351 bundles, also or dealers' account.

Ottawa Market News—Trade a Little Livelier

Ottawa, December 10 (Special to the Canada Lumberman):—There has been some improvement in trade during the last two weeks at the prices which have prevailed for some time past. Operations in the camps are on a larger scale than it was expected they would be when the war started, the weather being partly the cause of this. Most of the lumber firms are busy totalling up their cut for this year and taking stock. The water has risen in the Ottawa very considerably of late, which, though not proving of much benefit to the majority of the lumbermen, is a great help to pulp and paper manufacturers, such as J. R. Booth and the E. B. Eddy Company.

Owing to a peculiar condition in the money market brought about by the war, lumbermen in Ottawa and elsewhere, as well as other merchants, are finding that it is profitable to receive a cheque from New York or any other American city just now. Canadian banks are paying a premium of 1/16 per cent. on these cheques, which means quite a neat little amount on a big transaction. This is much different to the conditions which prevailed soon after the war began, when a discount of 2 per cent. was charged by the banks here on cheques from New York. The reason the premium is now being paid is because Canadian bankers have overdrawn on their American accounts and so are anxious to get them balanced up.

Application has been made to the Dominion Government by the Sprague Falls Manufacturing Company, of St. Stephen, N.B., for permission to dam the St. Croix River, build power houses, etc., in order to carry on a general lumber business. The application is under consideration by the government. It is doubtful if it will be granted, for the reason that the St. Croix River is said to be a navigable stream for most of its length and the construction of a dam would interfere with navigation.

The vexed question of switching and interswitching tolls is still before the Railway Commission. Last week, the Board held another hearing, with the hope that it would be the last, but it was found that it will be necessary to hold sittings in Winnipeg and Hamilton before the inquiry is closed. Mr. Frank Hawkins, secretary of the Canadian Lumbermen's Association, has filed a protest with the Board that the switching tolls on cars of lumber are much too high compared with the rates charged in American cities. This is the crux of the objection taken by all other manufacturers and merchants.

Judgment was reserved in the Supreme Court of Canada when the case of Booth vs the King was argued last week. In 1891 Mr. J. R. Booth, the veteran lumberman, was given a license by the superintendent of Indian Affairs to cut timber on certain Indian lands. Since then the license was renewed until 1909 when it was refused. An order-in-council passed in 1888 provided that a licensee who had paid his fees and met all the requirements of the license could have it renewed on application. Action followed the refusal and the Exchequer Court of Canada gave a verdict in favor of the King. It is against this judgment that the appeal was taken.

The case of the Vancouver Lumber Company vs the King, also came up again in the Supreme Court a few days ago. After a lengthy argument over that much disputed land, known as Deadman's Island, judgment was reserved.

Quebec Cullers' Report

The following comparative statement of timber measured and culled is furnished by the Quebec Supervisor of Cullers' office under date of December 3rd:

	1912 Cubic Feet	1913 Cubic Feet	1914 Cubic Feet
Waney white pine	1,087,600	244,280	593,080
White pine	1,760	7,560	.....
Red pine	12,200	960	1,040
Oak	113,840	161,200	343,240
Elm	276,640	284,880	305,240
Ash	520	1,000	680
Birch and Maple	42,920	47,680	50,800

Getting Acquainted

Is somewhat of a problem, at times, occasionally decidedly unpleasant You have probably found it so in both your buying and selling experience.

Why take a chance of having your pride, feelings or temper ruffled—stick close to your old friends, not quite the excitement maybe, but there's that peace of mind, that satisfaction in knowing that they can be depended upon.

There is no more dependable place on earth to get your Dressed Spruce, than Fenderson's—the value is in it—beautifully dressed—excellent grade—bone dry—you can bank on its being good when you place the order.

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Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND USE—COMMENT AND VIEWS ON AN IMPORTANT BRANCH OF THE TRADE.

The Most Costly Woods

It has been claimed that the small piece of spruce used in the manufacture of a high-class violin is the most costly wood in the world. The test is not fair. It is the work bestowed on the wood, and the name of some famous maker associated with it, that give the spruce in a violin its value. The test is the wood bought in the rough, before any value has been added by manufacturing. Measured in that way, spruce, even the finest that the market affords, does not measure in value up to a number of other woods. A value of $100 a thousand feet would be excessive.

It is not possible to say what is the cost of any wood. The cost varies with time, place, and quality. Very fine samples may sell for two or three times as much as ordinary samples of the same wood. The fairest method of coming to a price is to take averages in a good market during a considerable period of time, and the cost should be at wholesale, so far as the wood has a wholesale value.

Calculated in this way the list which follows gives some of the costliest woods in the American market, but not all of them. Doubtless some which are not in the list are as expensive as some that are there, but the list will answer the general purpose of showing the range of expensive woods in the market. The figures are taken, for the most part, from reports of wood-using industries of either New York or Illinois, and are the average prices paid during one year. They should, therefore, be fairly representative. All of the values are based on the basis of 1,000 feet, board measure. Some expensive woods are bought and sold by the pound, but where price is given it is calculated on the basis of 1,000 feet.

The following list of woods and prices is compiled from actual purchases:

Wood	Cost per thousand feet	Wood	Cost per thousand feet
Mahogany	$140	Cocuswood	275
Cocobal	160	Vermillion	300
Madagascar tulip	180	African walnut	321
Donselia	203	English oak	340
Rosewood	220	Amaranth	400
Teak	262	Turkish boxwood	400
Circassian walnut	275	Sandalwood	400
Ebony	275	Satinwood	400
Australian plum wood	275	Snakewood	575

Every one of the foregoing woods is foreign. Black walnut is usually credited with being the most expensive wood of the United States. The claim probably holds good if only woods in general use are considered. Mesquite lumber, sawed for furniture, sells for more than black walnut, but it is not regularly in the market and is sawed to order and in small amounts only.

Some of the most costly woods are never sawed into lumber. Among such are the tropical woods made into fishing rods. They are marketed in small billets, and they are often paid for by the pound. Some of these, if reduced to board measure, would range in price from $500 to $1,000 for 1,000 feet.

The nannyberry, or black haw, which grows in most of the eastern states, is an important source of supply for canes and umbrella handles of the common sort. Natural crooks in the wrong place are straightened, and artificial crooks are made where wanted, and in that shape the stock goes to the factory to be finished. It is somewhat difficult to arrive at an average cost of such material, but if reduced to board feet $600 or $700 a thousand would be inside the limit for the best; but at that price some manufacturing has already been done on the material.

If searching for the highest priced wood in the world, according to present markets, the honor will doubtless fall on malacca (Calamus scipionum). This is neither a hardwood nor a softwood, but a climbing palm found in the jungles of Siak on the island of Sumatra. It is used for canes. There are all grades. Some cost very much more than others. The finest grades top the world's prices. The choice stick for a cane is cut from between the joints of the palm, and must be forty inches long. That length is quite unusual, and long search is required to find one. It is said that from 50,000 to 100,000 pieces must be sorted to find one that is perfect. However, good prices are obtained for those which are not faultless, and it is not necessary to throw away imperfect stock. When a perfect specimen is found it is handled with the greatest care, for it is worth almost its weight in gold.

New York is said to be the best market in the world for high-class malacca canes. London, Paris, Vienna, and St. Petersburg follow. Much of the stock reaches New York with the roots still attached to the stems. The lower grades are bought by the ton. In New York the straight palms are steamed and carefully hand bent in a vise until the proper crook is secured. There are men who think they possess the secret of doing this, and they guard the secret with jealous care.

A malacca cane of fair quality sells for fifty dollars, while the best, with artistic taper and perfect crook, is worth $125. If the stock in such a cane is reduced to board measure, and the value figured on that basis, it is found that it is worth the enormous sum of $700,000 the thousand feet. No great part of this is due to cost of manufacturing, but can be charged to the expense of finding the high-grade stock in the jungle and taking it to market.—Hardwood Record.

Walnut and Combinations

With the revival of interest in American black walnut on the part of many furniture manufacturers and others, there has been a temptation to cut the cost to a limited extent by using cheaper woods in combination with walnut, the idea being that by staining the combination material it can be made to produce a satisfactory result, says Hardwood Record. The shrewder consumers, however, are keeping away from this as much as possible. They realize that while using high-grade black walnut all the way through would be rather expensive, they can buy a cheaper walnut for less conspicuous portions of the piece, and have the advantage of being able to offer a product that is exclusively walnut, instead of having to admit that it is a hybrid. The temptation to substitute some other wood for walnut is felt chiefly by the makers of popular-priced furniture, of course, those making high-grade lines not having considered anything but an exclusively walnut proposition; but even the former, it is contended, could well afford, at the expense of a few cents additional per piece, to use walnut exclusively. The walnut men who see combinations being made are likewise apprehensive lest this make a bad impression on the public and hurt the reputation of American black walnut at this critical time in its revival.

Ebony and It's Imitations

The black keys of pianos are sometimes made of ebony. It forms part of many other musical instruments, handles for small tools, and novelties of many kinds. It is persimmon wood, but not the species found in North America. It comes from Ceylon, Madagascar, Africa's east coast, and from other tropical countries. It is of many colors, ranging from jet black to brown and green. The blacker it is, the more valuable. Two thousand years before the days of Abraham the Egyptians were cutting ebony under the equator on the east coast of Africa and shipping it to furniture makers in Egypt. Some of that furnture is in existence today.

The cost of ebony tempts counterfeiters to imitate it. The most common imitation in this country is holly. It is worthy of note that one of the whitest woods in the world should be chosen to imitate one of the blackest. The holly is boiled in hatter's dye and becomes so black that no one suspects the counterfeit if he judges by the color alone. The fine grain of holly contributes to the deception, but the weight gives the secret away. Ebony is twice as heavy as holly. This imitation is often employed in making billiard cues and in other inlay work where the weight is not taken into consideration.

In Europe, one of the most common imitations of ebony is prepared from the wood of fruit trees, preferably pear. It is dyed in much the same way as holly, and it takes a fine polish which closely resembles ebony.

Other imitations are numerous. They are found in tropical America and in the tropical countries of the East. Of late a timber from Africa, called wat-wood, has been mentioned as a successful substitute for ebony; but the wood appears not to be mentioned under that name in any of the standard books on commercial timbers, and its botany is uncertain.

Even the United States has a candidate for favor as an imitation of ebony. It grows along the Rio Grande, and the people in that region like to have it called Texas ebony. It is little kin to real ebony, but is a locust tree, and a denizen of the jungles of mesquite, huisache, devil claw, and other thorny brambles which cover the hills and ravines of south-western Texas. It is known to botanists as Zygia flexicaulis. Efforts to put it on the market as ebony have not been successful, for the probable reason that its color is unsatisfactory. Some parts of the trunk may be as black as ink, but there are stripes and zones of wood as yellow as bodark or as brown as walnut, and it is

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Dominion Mahogany & Veneer Company

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not easy to cut the black pieces in shapes and sizes suitable for uses in cabinet-making.

The railroads in that region cut the wood for ties, and as far as it may be judged by experience, it will last for ever. No one ever saw a rotten railroad tie of this wood. Worms devour the sapwood, which is yellow and half an inch thick, but they can make no impression on the heartwood, and it becomes harder the longer it is in use.

Texas ebony is valuable as fuel. It is at its best under the boilers in the cane-grinding mills near Brownsville; but it is not popular as stove wood because it is said to generate so hot a blaze that the stove is burnt out. The damage to the stove is probably not due so much to the extreme heat developed by combustion as to the acid set free in process of burning. When the northers come down across the plains and send shivers through the thin-blooded Texans along the Rio Grande, the fireplaces are piled with ebony and the red blazes make their presence felt, while the odour contains a strong and not wholly pleasant suggestion of burning leather.

Accounts have been published recently of artificial ebony which is said to be meeting requirements fairly well in some instances, but it must face failure in others. It is manufactured by mixing sawdust and blood and subjecting the mass to enormous pressure. The color might be all right, and possibly the weight and polishing properties may be satisfactory, but the strength ought to be thoroughly tried out before the composition is accepted for situations where great strength is required.—Hardwood Record.

Importance of Proper Feed on Thin Circular Saws

With the advent of the band resaw and the light gauge blade, the prediction was freely made that the circular resaw was doomed to extinction in a short time, as part of the sawing outfit of the planing mill. The prophecy has failed of verification, and like the thin log saw, the thin resaw still holds its own.

One of the advantages of the thin circular over its competitor, the band, lies in the fact that nearly all of the ordinary employees around the mill can point up a saw and go on, doing good work at a fair rate of feed until the saw needs gumming. It will work under conditions that are absolutely prohibitive to the band.

Some experience with thin circulars that caused us lots of trouble might be of benefit to some one who is trying to get a circular to work on a band kerf. Our saws were ordered 14-gauge at the eye and 22-gauge on the rim, using full swage, side dressed to take only one-sixteenth inch kerf. The old saws they were to replace were 12-gauge straight, which would run along a half day without filing. It was like an axe chopping out a three-sixteenth inch kerf.

The mandrel ran hot, but it did not seem to make any difference to the old saw. The new blades, however, went all to pieces, so to speak. They writhed and twisted like a midway dancer and the first twist took all the swaging off both sides, by striking the bed plate at the back of the blade. It took some time to get the mandrel to run cool. From previous want of care, the arbor had scored at the bearing and showed slightly sprung when put in the lathe. When this was finally remedied and the box kept cool with the aid of a stream of cold water, another saw was put on. For a time, the saw would work well when the feed was about fifty feet a minute. Gradually heat would start to develop at the rim and then the saw would "snake" until water was applied to cool it off.

Here was a quandry; the saws would not work without the water and the dust would not go up the blow pipe with the water. The old saw was too small and orders were pressing. The saws were twenty-two inches in diameter and had eighty teeth, and it occurred to me that the saws were cutting too much fine dust to a given amount of feed; if they had less teeth or more feed, they might work all right. The feed pulley for a ninety foot feed was put on, with the result that the saws went through the siding as if it were cheese, without heating. The feed had been too slow. The same rule that applies to a big circular applies to a small one. If your saw has plenty of teeth and belt power, give it all the feed the belt will pull; if you have to run a slow feed, use fewer teeth; don't make flour instead of sawdust. —M. W. in the Disston Crucible.

Single or Double Surface Sanders for Interior Finish

Six drum or double surface sanders have been well established in sash and door plants for a number of years. All the very large plants in the United States use them. Even many of the smaller concerns, putting out from 300 to 600 doors per day, find them more economical than the triple drum sanders, and use them where there is no real necessity of the second side being sanded.

This state of affairs brings up a question in my mind as to why a double surface sander wouldn't be a good investment for many concerns making interior finish. Undoubtedly where a firm makes only the standing trim for offices, residences, school buildings, etc., there would be no need of a six drum sander, although they find the triple drum machine a growing necessity. But when office furnishings form part of a firm's business, wouldn't sanding both sides of most pieces entering into such work be a decided improvement? Take a wardrobe, for instance. Plainly both sides of such a piece of furniture should be sanded. Telephone booths are in the same class; cupboards, including their doors and shelves, open counter table parts, and many pieces of special furniture for office use should be well sanded both sides.

Not that these furnishings are always sanded. They are not, I'm sorry to say. But they should be, because when both sides of more or less exposed parts of such furniture are sanded, it gives one a sense of quality, workmanship and care that is not present when these parts are only planed and left not even partly finished.

There was a time, not so very long ago, that you didn't find a sander in but a mighty few interior finish plants. But, you find them now. You find them even in the relatively small plants. And buyers of interior finish appreciate, in fact, insist upon their finish being sanded.

Now the question is: in those plants where many special doors, special fittings, like cabinets, cupboards, etc., are made up for individual jobs, and where both sides should be sanded, even though they are not now, wouldn't the six drum sander be the more economical to install?

It seems so to me. It should be remembered that the six drum sander is not necessarily always a double surface sander. Its top drums may be raised above stock, very easily and quickly, or the first drum may be allowed to cut, if desired. And the second side of whatever pieces should be double surface sanded, may be finished once through and have it done with.

This doesn't apply, naturally, to shops where the sander is used but little; but where a sander is on the job continuously, and the operator always has work ahead of him, I believe the six drum is the machine to install. It is economical, the work is certainly fine, and there isn't a single drawback.

I know of several concerns making doors in large numbers which the trade generally think of as high class, that are still using triple drum sanders, and sanding one side at a time. Others use triple drum sanders working tandem.

Neither of these methods is as economical as six drum sanding, especially considering the quality of work obtained. In working tandem at least one more man is required, even when the second machine is immediately back of the first, than the six drum requires. And as regards the quality of the work of the two methods, the two machine method loses out in the comparison.

It is interesting, on the other hand, to note that several concerns making small articles use six drum sanders, and are able to economize to a considerable extent thereby. Possibly after all, the whole matter lies in the viewpoints of the men who are responsible for the installation of machines. A little prejudice often blinds a man, whereas an open minded policy would give him a microscope for investigation.—Berlin Quality.

Railway Tie Consumption in South Africa

The United States Daily Consular & Trade Reports in a recent issue referring to the demand for railway ties in South Africa, says:—

With the exception of the short line owned and operated by the New Cape Central Railway Company, extending from Worcester (a station 111 miles inland from Cape Town) to Mossel Bay, a distance of 209 miles, the entire railway system within the Union of South Africa is owned and operated by the Government.

During the last five years the South African Railways have used a million or more ties in the extension of new lines or the repair of existing ones. These ties (or sleepers, as they are called here) are generally of jarrah or karri wood, both of which are imported from Australia. I have been reliably informed that ties cut from these woods resist decay (whether from dry rot or from being submerged in water) and the destructive white ant. A man well informed on this subject stated that he had seen ties of jarrah and karri wood taken out of the roadbed in a perfectly sound condition after 15 years' use. He further stated that, in the absence of the strongest proof of similar resisting qualities, it would be very difficult to induce the Government officials to experiment with ties made of other woods.

The imports of jarrah and karri wood (practically all used for ties or sleepers) into the Union of South Africa under the head of "Merchandise," amounted in 1911 to 257,797 cubic feet, value $78,521; in 1912 to 218,505 cubic feet, value $65,216; and in 1913 to 242,181 cubic feet, value $72,355. In addition jarrah wood was imported as "Government stores" from Australia as follows: During 1911, 21,561 cubic feet, value $17,539; 1912, value $33,097; 1913, 163,347 cubic feet, value $67,518.

Most of the ties or sleepers used by the Government railways are bought through local representatives and are therefore tabulated as "merchandise" and not as "Government stores." The proper parties to address with regard to the three lines of railway in operation in this country are as follows: South African Railways—The Assistant General Manager, Cape Town; Beira and Mashonaland and Rhodesian Railways—The General Manager, Bulawayo; New Cape Central Railways—The General Manager, Robertson.

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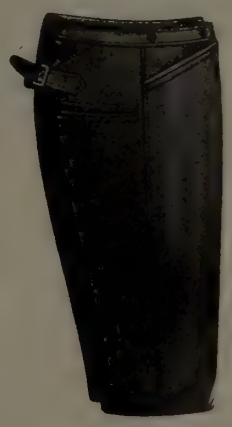

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Send for catalogue giving estimated weights of various sizes of chain; prove test; breaking, straining and safe-working loads, and giving hints regarding the care of chain which will prolong a chain's usefulness.

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EDGINGS

Ontario

Barrett Bros., Catherine Street, Ottawa, recently lost their lumber building and yard by fire, the loss amounts to $6,000.

The planing mill owned by Mr. O. E. Wallace at Listowel, Ont., was recently destroyed by fire, the loss, which included the planing mill, stable and coal and wood sheds, amounted to $2,000, on which there was insurance of $1,000.

The planing mill owned by Oliver & Ellis at Listowel, Ont., was re-Smart Manufacturing Company, Limited, Brockville, Ont., to replace the one which was destroyed by fire early last summer, is now nearing completion. The building is three storeys, 100 x 50 ft., of reinforced concrete and brick construction. The cost is $15,000.

The Kastner Lumber Company, Wiarton, Ont., report that they will take out a fair amount of logs during the coming winter, in order to give employment to a number of men. From a business point of view Mr. Kastner was inclined to omit his woods operations this winter, but has sufficient confidence in the outlook to take a chance on next summer's trade. Johnston, Hunter & Crawford, of Wiarton, will also conduct logging operations this winter.

J. R. Booth, Ottawa, is making good progress with the construction of his new timber mill. The building is to be one storey, 150 x 45 ft., of reinforced concrete construction. The walls are now up and the balance of the work will be carried on by day labor. The cost of the timber mill will be $22,000. Similar progress has been made in the construction of the sulphite mill which is to cost $35,000. This building is to be two storeys, 50 x 98 ft., of reinforced concrete construction.

Eastern Canada

The Canadian Match Company, Drummondville, P.Q., recently lost their match factory by fire.

H. Chagnon & Company, Limited, lumber dealers, have been incorporated with head office at Montreal.

The Bordeaux Sash & Door Company, Limited, have been registered to carry on business at Montreal.

W. R. McCloskey Limited, have been incorporated with head office at Boiestown, N.B., and authorized capital of $40,000, with power to carry on a general lumber and mercantile business.

A report from Truro, N.S., states that the Dominion Steel & Coal Company are calling for tenders for cutting and making 96,000 props and beams for the mines and between 200,000 and 300,000 feet of lumber for their own use to be cut on their own timber lands.

The Montreal Harbor Commissioners have awarded contracts for the supply of 3,304,000 feet B.M. of hemlock, longleaf yellow pine, elm, maple, Douglas fir and oak, to the following firms:—W. H. Kelly Lumber Company, Buckingham, P.Q.; G. W. Dansereau, Grenville, Ont., and Mason, Gordon & Company, Montreal.

The Halifax Lumber Company, with a capital of $750,000, has been formed to take over the Alfred Dickie lumber areas from the Royal Bank as the holding corporation. This property of 300,000 acres was sold a short time ago on foreclosure for some $400,000 to the Royal Bank, whose claim is $750,000. These lands are much more valuable than the claim of the Bank, and when times improve a sum much more than any claim is likely to be obtained.

Western Canada

W. B. Cutler, Port Coquitlam, B.C., has opened his new sawmill and is installing three shingle machines.

A. J. Waskett has almost completed arrangements for the erection of a shingle mill costing $25,000 at Port Alberni, B.C.

The Usk Lumber Company, Limited, has been incorporated with head office at Usk, B. C., and authorized capital of $25,000.

The Western Logging Company, of Vancouver, B.C., has purchased $875,000 feet in the Sayward district, on the basis of $1.25 per thousand feet.

The Dominion Lumber & Timber Company has transferred its head office from Vancouver, B.C., to Kamloops, B.C., where the president, J. C. Shields, resides.

The firm of Prentiss, Ramsden & Mack, of New Westminster, B.C., has recently purchased 4,156,000 feet of fir, cedar and spruce, and 386,000 feet of

hemlock, from the Provincial Government, paying on the basis of $1.60 for the stumpage, which is in the Lillooet district.

The Wilton Shingle Company, Eburne, B.C., announce that it will reopen the shingle plant formerly operated on the north arm by the North American Lumber Company, which has been idle for some months. The capacity of the mills will be about 200,000 shingles per day.

Middlesboro Collieries, Limited, have been incorporated with head office at Vancouver, B.C., and authorized capital of $20,000. In addition to the usual rights connected with the carrying on of a mining business, the company's powers include the right to carry on business as timber merchants, lumber manufacturers, etc.

The Eureka Lumber Company, of Elko, East Kootenay, B.C., whose mill burned about six weeks ago, has commenced the construction of a new and larger plant, which will have a capacity of over 200,000 feet daily. An entire new yard system will be installed whereby the lumber will be conveyed from the mill by motor trucks, automatically loaded, and electric stackers will be used in piling the lumber.

The Mackie Mill & Mercantile Company, operating a plant at Gettysburg, Wash., has leased property on the south side of the Fraser River at New Westminster, B.C., and will build a shingle mill, having an initial capacity of 200,000 shingles per day. The mill will employ about 35 men at the beginning which number will be increased as conditions warrant. Construction of the plant will commence immediately.

Two hundred million feet of hemlock and spruce timber has been sold by the British Columbia Department of Lands to the B. C. Sulphite Fibre Company, Limited, operating at Mill Creek, Howe Sound. The timber purchased by the company consists of eight parcels, located on Seymour Inlet, Ahnuhite River, Knight's Inlet, Big Creek, Johnstone Strait, Vancouver Island; Stafford River, Loughborough Inlet; Eden Island, Thurlow Island, and on Viscount Island. For stumpage, the estimated revenue to the province from these sales is $88,869. The company also pays a ground rent which amounts to approximately $2,000 per year. The revenue from royalty will total $75,000. The British Columbia Sulphite Fibre Company is at present making about 65 tons of sulphite daily, operating its plant day and night and giving employment to about 400 men. Their markets are Japan, South America, New York and the northwestern States.

The Canadian Pacific Mills Limited, with a capital of $9,500,000, is the outcome of a reorganization of the Ocean Falls Company, as reported in a recent issue of the Canada Lumberman, was carried out by Messrs. Mortimer Fleischhacker, Herbert Fleischhacker, and Wm. Pierce Johnson, of San Francisco, who purchased the property from the receiver in January last. The incorporators include W. S. Lane, solicitor, Vancouver; R. A. Leiter; T. S. Robinson and Leslie Craven, lawyers, of Portland, Oregon, and R. E. Parker, law student, Vancouver. It is stated that Messrs. Fleischhacker and Johnson will turn their holdings into a new company and that a modern paper-making plant will be installed at once. A good demand for British Columbia paper is expected to result from the completion of the Panama Canal and, for a similar reason, the demand for Pacific coast lumber on the Atlantic Seaboard is expected to increase.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1167. **Railway ties.**—A London firm which has large inquiries for cedar and other railway ties, sawn square, invites quotations c.i.f. Liverpool, and from Canadian manufacturers.

1168. **Wood pulp.**—A Glasgow firm desires the addresses of Canadian manufacturers of wood pulp who are in a position to quote for prompt shipment.

1178. **British Columbia fir.**—A number of French firms ask to be placed in touch with British Columbia fir dealers wishing to do business in France, Algeria, Tunis and Morocco.

1179. **Lumber.**— A firm at Rouen, France, are prepared to correspond with Canadian lumber manufacturers able to ship timber in the following sizes: 3 in. x 9 in., 2½ in. x 7 in., 2½ in. x 6½ in., in well-matched lengths of three metres and more.

1188. **Railway ties.**—A firm in Rotterdam wishes to obtain quotations from Canadian shippers for 60,000 pine and 40,000 oak railway ties. Particulars of sizes, etc., can be obtained on application to the Department of Trade and Commerce, Ottawa, report No. 515.

1189. **Wood tubs.**—An Irish firm desires the addresses of Canadian manufacturers who can supply them with cheap wood tubs.

1190. **Pulpwood poles.**—A Welsh manufacturing company invite quotations from Canadian firms who can supply pulpwood poles (4 in. to 12 in. top and in lengths of 9 to 12 feet barked and partly basted), suitable for conversion into wood fibre for packing purposes.

The Old Time Landlooker

Took a look and made a guess. If he underestimated by 3,000 feet to the acre the buyer did not complain; if he was 3,000 to 4,000 feet short, the buyer grumbled but concluded it was not a matter of great amount. For

A thousand feet of timber today is worth more than an acre of timber bought during the days of the old time landlooker.

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Thos. Mackarell & Company

Red Pine
White Pine
Spruce

Wholesale Only

Offices:—

Ottawa **Montreal**

ONTARIO
Canada's Banner Province

Ontario's timber production last year valued at $26,774,937 or 40% of Canada's total output.

Pine production, 905,442,000 ft. B.M.
Pulpwood, 246,282 cords.
Railway Ties, 5,704,459.

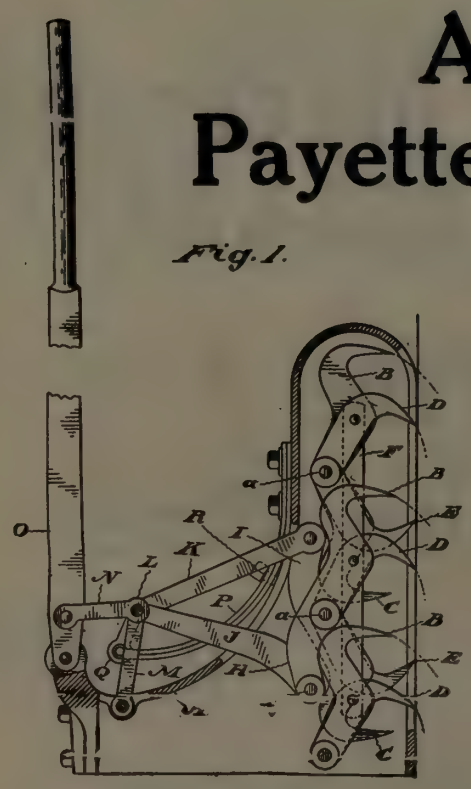
Ontario's woodworking industries, using 34 different kinds of wood, provide a ready market for the lumberman. Eighty-two per cent. of lumber used in Ontario's industries purchased within the Province.

Ontario's vast resources offer unsurpassed opportunities to the lumberman.
For maps and full information regarding Ontario, apply to

HON. W. H. HEARST,
Minister of Lands, Forests and Mines.

A Boon to Lumbermen
Payette's Famous Patent Mill Dogs
650 Sets already sold

Fig. 1.



BECAUSE
(1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer. P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different classes and styles of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.

P. Payette & Company
Engineers and Machinists
Penetanguishene, Ontario

Producing Economies Needed

CHRISTMAS brings us close up to the day when we will know the profits or the losses of this queer business year. It also brings us close to the end of the year's business lessons.

Whatever may be the general teachings of these lessons, your close knowledge of the producing units in your system of manufacture must show definitely the need of economies at certain points.

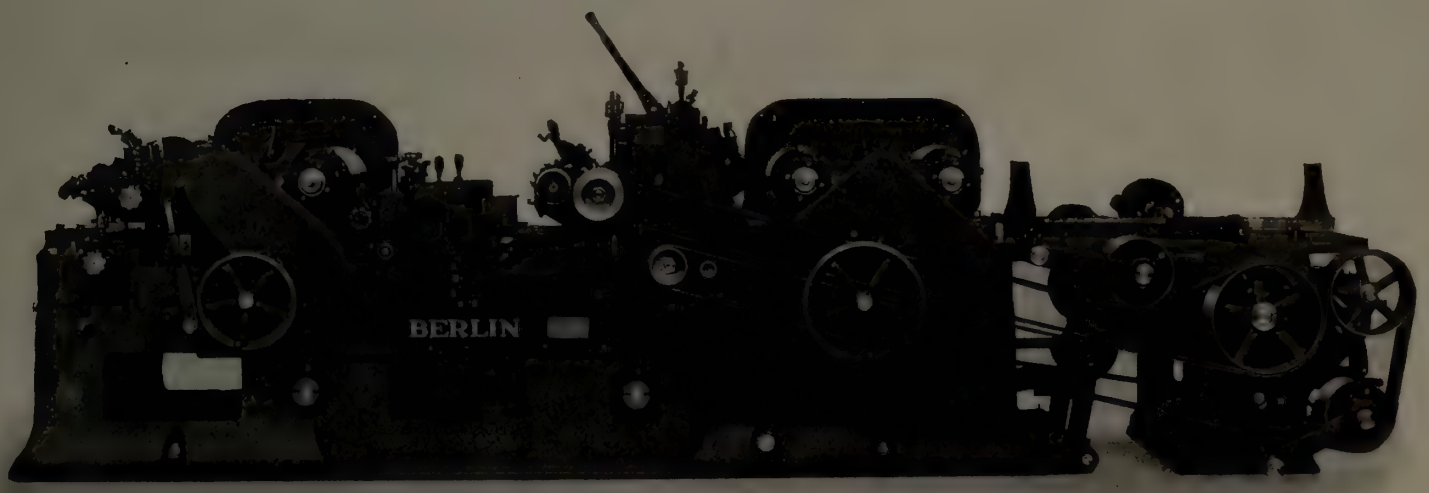
One of these points may be your Planer and Matcher.

Planer and Matcher production is practically standardized, in speed at least. Berlin Matchers placed the standard profitable rates of feed at from 150 to 250 feet per minute. In every section of Canada and the States they are working at that rate.

Unless your machines are working at upwards of 150 ft. per minute, you are not taking all the profit you can from your operations.

In many mills Berlin Matchers have reduced the cost of matched stock 30% Besides, the better lumber made brings better prices on the open market. This additional profit should be on your books this year. If it isn't, it is because you are not operating a late type Berlin Matcher. Cheaper Matcher production is one that points for your investigation early next year.

Begin by sending for full information on Berlin Matchers. Free upon request.



Berlin Machine Works, Limited, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World

U. S. Plant with Offices: BELOIT, WISCONSIN

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	$50 00	52 00
1½ inch No. 1 cuts and better	60 00	62 00
2-in. No. 1 cuts and better	62 00	64 00
1½-in. No. 2 C. & B.	45 00	47 00
2-in. No. 2 cuts and better	47 00	49 00
4/4 No. 2 and 3 cuts		31 00
5/4 and 6/4 No. 2 and 3 cuts		37 00
8/4 No. 2 and 3 cuts		38 00
1-in. Good Shorts	35 00	40 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	31 00	32 00
1 x 12 common and dressing	32 00	34 00
1 x 10 and 12 mill cull stocks		23 00
1-in. mill cull sidings		21 00
5/4 and 6/4 x 4 m.r., m.c. out		27 00
5/4 and 6/4 x 5 m.r., m.c. out		27 00
5/4 and 6/4 x 6 m.r., m.c. out		27 00
5/4 and 6/4 x 8 m.r., m.c. out		27 00
5/4 and 6/4 x 10 m.r., m.c. out		32 00
5/4 and 6/4 x 12 m.r., m.c. out	32 00	34 00
2 x 10 common		26 00
2 and 3 x 12 common		28 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common		27 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts		22 00
1-in. mill run Norway		22 00
2-in. mill run Norway		23 00
Norway, c. and cf. 1-in.	28 00	30 00
Norway, c. and cf. 1½-in.	30 00	32 00
Norway, c. and cf. 2-in.	30 00	32 00
Spruce mill culls		19 00

Hemlock No. 1:

1 x 4 and 5-in. x 9 to 16 ft.	17 00
1 x 6-in. x 9 to 16 ft.	20 00
1 x 8-in. x 9 to 16 ft.	20 00
1 x 10 and 12 in. x 9 to 16 ft.	22 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	18 00
1-in. No. 2, 6-ft. to 16-ft.	17 00
2 x 4 to 12, 10 and 16 ft.	20 00
2 x 4 to 12-in., 12 and 14 ft.	20 00
2 x 4 to 12-in., 18 ft.	24 00
2 x 4 to 12 in., 20 ft.	26 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 24 ft.	28 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	16 00
Clear in B. C. cedar, kiln dried	50 00

Douglas Fir:

Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	31 50
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	32 00
6x14, 8x14, 12x18, 18x20, up to 32 ft.	32 50
6x16, 8x16, 10x18, 12x20, 14x20, 16x20, up to 32 ft.	33 00
10x20, up to 32 ft.	33 50
6x18, 8x18, up to 32 ft.	34 00
8x20, 8x20, up to 32 ft.	35 00

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., $1; 41 to 45 ft., $3; 46 to 50 ft., $5; 51 to 55 ft., $7; 56 to 60 ft., $9; 61 to 65 ft., $12.50; 66 to 70 ft., $15; 71 to 75 ft., $18; 76 to 80 ft., $22.

Fir flooring, edge grain	36 00
No. 1 and 2 clear 1-in. Fir rough	39 00
No 1 and 2 clear 1¼, 1½ and 2-in. Fir rough	41 00
1½-in. No. 1 4-ft. pine lath	5 00
1½-in. No. 2 4-ft. lath	4 75
1½-in. 32-in. pine	2 65
1½-in. No. 1 4-ft. hemlock lath	4 00
1½-in. mill run hemlock lath	3 75
XX B. C. cedar shingles	2 25
XXX 6 butts to 2-in.	2 85
XXXX 6 to 23-16-in.	3 05
XXXXX	3 35

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4.	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1 com. and bet., 4/4	30 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	30 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds.	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	28 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	28 00
Soft elm, No. 2 and 3 common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4.	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	25 00
Soft maple, 6/4 & 8/4, 1sts and 2nds.	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	28 00
Hard maple, 12/4 & 16/4, 1sts and 2nds.	46 00
Red oak, plain 1sts and 2nds, 4/4	59 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	65 00
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1sts and 2nds, 4/4.	59 00
White oak, plain, 1sts and 2nds, 1½ and 2-in.	65 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4.	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds.	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:

1-in. x 7-in. and up	$52 00	54 00
1¼-in. & 1½-in. x 8-in. and up	55 00	58 00
2-in. x 7-in. and up	58 00	62 00
No. 2 cuts 2 x 8-in. and up	40 00	42 00

Pine good strips:

1-in.	38 00	40 00
1¼-in. and 1½-in.	50 00	52 00
2-in.	52 00	55 00

Pine good shorts:

1-in. x 7-in. and up	40 00	42 00
1-in. x 4-in. to 6-in.	30 00	33 00
1¼-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	24 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1¼ and 2-in.	28 00	30 00
Pine, s.c. strips 1-in.	21 00	23 00
1¼, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.		20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	20 00	21 00
Pine, s.c. shorts, 6'-11' 1"x10"	23 00	24 00
Pine, box boards:		
1" x 4" and up, 6'-11'	17 50	18 00
1"x3" to 6", 12'-16'	19 00	20 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	17 00	18 00
O. culls r & w p	15 00	17 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1¼-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill culls, white pine, 1"x7" and up	20 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1¼"x7" 8-9" and up, 12'-16'	22 00	24 00
1¼"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'.	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	22 00	24 00
Basswood log run mill culls out	23 00	26 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 25	4 50
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 25	3 50
Red pine, mill run	3 60	3 70
Hemlock, mill run	2 75	3 00
32-in. lath	2 00	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

	cts.	
White Pine—In the Raft		
First class Ottawa waney, 18-in. average, according to lineal	60	65
Oak—Michigan and Ohio		
By the dram, according to average and quality	60	70
Elm		
By the dram, according to average and quality, 40 to 45 feet	70	75
By the dram, according to average and quality, 30 to 35 feet.	50	60

Ash

13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40

Birch

14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up.	$22 00	23 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	16 00	18 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	$54 00
1 in., 8 in. and up wide	62 00
1¼ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00
1¼ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 and 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1¼ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1¼ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	25 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1¼, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00	45 00
1¼, 1½ and 2-in.	36 00	45 00
2½ and 3-in.		45 00
4 inch		50 00

No. 2 Barn

1 inch	28 00	36 00
1¼, 1½ and 2-in.	30 00	36 00
2½ and 3-in.		38 00

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Box

No. 1, 1, 1¼, 1½, 2-in.	22 00	25 00
No. 2, 1¼, 1½, 2-in.	19 00	23 00

Mill Culls

Mill run culls, 1-in.		19 00
1, 1¼, 1½ and 2-in.		20 00
No. 2	17 00	18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 25
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 75

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	14 00	17 00	20 50	18 50
2 x 6	14 00	17 00	20 50	18 50
2 x 8	17 00	17 50	21 00	19 00
2 x 10	18 00	18 50	21 50	20 00
2 x 12	18 00	19 00	23 50	21 50

FIR, HEMLOCK, SPRUCE AND LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50
2 x 4-6 and 8-in.; 8, 12, 14 and 16 ft.	22 50
2 x 4-6 and 8-in.; 10 ft.	24 50
2x4-6 and 8-in.; 24,26,28, 30, 32 ft.	26 50
2 x 10 and 2 x 12; 8-16 ft.	23 50
2 x 10 and 2 x 12; 18, 20, 22 ft.	25 50
2 x 10 and 2 x 12; 24, 26, 28, 30, 32 ft.	27 50

No. 1 Common Boards

4 inch	19 00
6 inch	21 50
8, 10, 12 inch	23 50
Mixed widths	22 50

Flooring

4 or 6 inch No. 1	33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	25 00

Shiplap—Finished

4 inch	19 50
6 inch	23 00
8, 10 and 12 inch	24 00

Siding

6 inch No. 1	33 00
6 inch No. 2	31 00
6 inch No. 3	25 00

Lath

No. 1 Cedar, pine, spruce (not mixed)	5 00
No. 1 Cedar, pine, spruce (mixed)	4 50
No. 2 Cedar, pine, spruce (mixed)	3 25

PINE—ROUGH TIMBER

3 x 6 in.; 8 to 16 ft.	25 10
3 x 8 in.; 8 to 16 ft.	22 00
3 x 12, 4 x 4, 6 x 6 in.; 8-16 ft.	25 00
4 x 10 to 10 x 10, 8 x 8, 6 x 12 in. up to 32 ft.	27 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S, and E.

2 x 4 in.; 6 and 8 ft.	23 00
2 x 4 in.; 12 x 14 ft.	24 00
2 x 4 in.; 10 x 16 ft.	25 00
2 x 4 in.; 18 x 20 ft.	26 00
2 x 4 in.; 22 x 24 ft.	27 00
2 x 4 in.; 26 to 32 ft.	29 00
2 x 10 and 2 x 12 in.; 10 to 16 ft.	25 00
2 x 10 and 2 x 12 in.; 18 and 20 ft.	27 00
2 x 10 and 2 x 12 in.; 22 and 24 ft.	28 00
2 x 10 and 2 x 12 in.; 26 to 32 ft.	30 00
2 x 14 in.; 10 to 16 ft.	30 00
2 x 14 in.; 18 and 20 ft.	32 00
2 x 14 in.; 22 and 24 ft.	33 00
2 x 14 in.; 26 to 32 ft.	35 00
3 x 3 and 3 x 4 in.; 8 to 14 ft.	26 00
3 x 3 and 3 x 4 in.; 8 to 16 ft.	27 00
3 x 3 and 3 x 4 in.; 18 and 20 ft.	28 00
3 x 3 and 3 x 4 in.; 22 and 24 ft.	29 00
3 x 3 and 3 x 4 in.; 26 to 32 ft.	31 00
6 x 6, 6 x 8, 8 x 8 in.; 6 to 16 ft.	29 00
6 x 6, 6 x 8, 8 x 8 in.; 18 and 20 ft.	29 50
6 x 6, 6 x 8, 8 x 8 in.; 22 and 24 ft.	30 00
6 x 6, 6 x 8, 8 x 8 in.; 26 to 32 ft.	30 50

FLOORING

Nos. 1 and 2, 1 x 3 in., E. G.	42 00
Nos. 1 and 2, 1 x 4 in., E. G.	41 00
Nos. 1 and 2, 1 x 6 in., E. G.	39 00
Nos. 1 and 2, 1 x 4 in. or 6 in., F. G.	33 00
No. 3, 1 x 4 in. or 6 in.	30 00
No. 3 Edge grain $3.00 per M. extra.	

SHIPLAP

B. C. Fir, 6 in.	23 00
B. C. Fir, 8, 10, 12 in.; 8 to 16 ft.	24 00
No. 2 Shiplap, 6 in.	21 00
No. 2 Shiplap, 8, 10 and 12 in.	22 00

FIR, COMMON BOARDS, S 1 S, 8 to 16 Ft.

Mixed widths (may contain 30 per cent. 4 and 6 in.)	23 00
Common Boards, 8 to 12 in.	24 00
No. 2 Mixed widths	21 00
No. 2 Boards, 8 to 12 in.	22 00

SHINGLES

XXX B. C. Cedar	2 90

LATH

Fir lath, 3/8 x 1 3/8 in. x 4 ft., bundled in 50's	4 00
Cedar lath 3/8 x 1 3/8 in. x 4 ft.	4 50

BUFFALO AND TONAWANDA, N.Y.

White Pine

Wholesale Selling Price

Uppers 4/4	$94 00
Uppers 5/4 to 8/4	92 00
Uppers 10/4 to 12/4	97 00
Selects 4/4	84 00
Selects 5/4 to 8/4	82 00
Selects 10/4 to 12/4	92 00
Fine common 4/4	61 00
Fine common 5/4	65 00
Fine common 6/4	65 00
Fine common 8/4	67 00
No. 1 Cuts 4/4	51 00
No. 1 Cuts 5/4	57 00
No. 1 Cuts 6/4	59 00
No. 1 Cuts 8/4	61 00
No. 2 Cuts 4/4	32 00
No. 2 Cuts 5/4	43 00
No. 2 Cuts 6/4	45 00
No. 2 Cuts 8/4	50 00
No. 3 Cuts 5/4	33 00
No. 3 Cuts 6/4	34 00
No. 3 Cuts 8/4	36 00
Dressing 5/4	46 00
Dressing 5/4 x 10	51 00
Dressing 5/4 x 12	52 00
No. 1 Moulding 5/4	58 00
No. 1 Moulding 6/4	58 00

(Continued on page 58)

28 "Service" Branches Throughout Canada

Canadian Consolidated Rubber Co., Limited

Montreal, P. Q.

A New Year's Resolution For You

"RESOLVED that, during 1915 and thereafter I will give preference, in my purchases of rubber goods and all other material, to such as are made in Canada."

So far as rubber goods are concerned, you run no risk in making this patriotic resolution, as we manufacture a complete line and the price, quality and style are right.

When in the market for tires, hose, belting, packing etc., let us show you what we can do.

It is our desire to serve you.

Canadian Consolidated Rubber Co., Limited

Montreal, P. Q.

28 "Service" Branches Throughout Canada

CURRENT LUMBER PRICES—Continued

No. 1 Moulding 8/4		58 00
No. 2 Moulding 5/4		47 00
No. 2 Moulding 6/4		47 00
No. 2 Moulding 8/4		47 00
No. 1 Barn 1 x 12		48 00
No. 1 Barn 1 x 6 and 8		34 00
No. 1 Barn 1 x 10		36 00
No. 2 Barn 1 x 6 and 8		32 00
No. 2 Barn 1 x 10		34 00
No. 3 Barn 1 x 6 and 8		26 00
No. 3 Barn 1 x 10		27 00
Box 1 x 6 and up		23 00
Box 1 x 10		25 00
Box 1 x 12		26 00
Box 1 x 13 and up		30 00

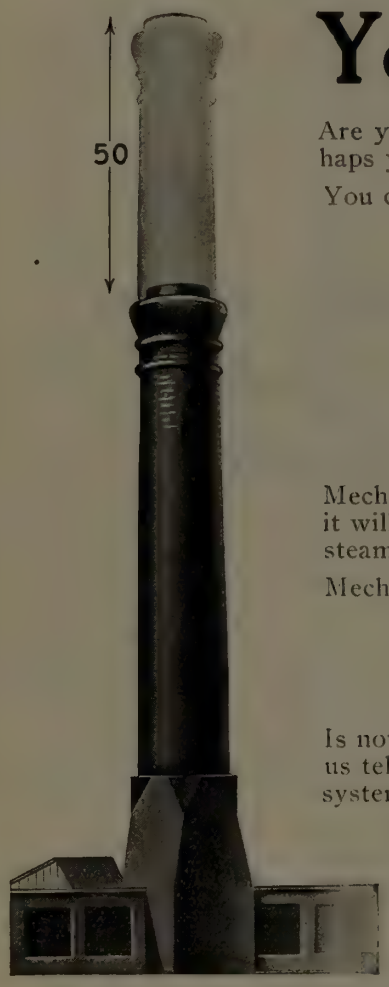
The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	30 - 32	20 - 22	14 - 16
5/4 to 8/4	33 - 35	22 - 24	14 - 15
10/4 to 16/4	37 - 39	27 - 29	19 - 21
RED BIRCH			
4/4	41 - 43	27 - 29	15 - 17
5/4 to 8/4	43 - 45	29 - 31	17 - 19
SAP BIRCH			
4/4	35 - 37	23 - 25	17 - 19
5/4 and up	37 - 39	25 - 27	17 - 19
SOFT ELM			
4/4	35 - 37	24 - 26	15 - 17
5, 6 & 8/4	37 - 39	26 - 28	17 - 19
BASSWOOD			
4/4	33 - 35	24 - 26	16 - 18
Thicker	35 - 37	26 - 29	19 - 20
PLAIN OAK			
4/4	51 - 53	32 - 34	20 - 22
5/4 to 8/4	53 - 55	34 - 36	22 - 24
ASH, WHITE AND BROWN			
4/4	45 - 47	27 - 29	18 - 20
5/4 to 8/4	52 - 54	29 - 31	19 - 21
10/4 and up	61 - 63	41 - 43	21 - 23

BOSTON, MASS.

White pine uppers, 1 to 2 in.	92 00	98 00
Selects, 1 to 2 inch	80 00	88 00
Fine common, 1 in.	68 00	70 00
Fine common, 1¼ to 2 in.	70 00	72 00
No. 1 Cuts 1 in.		55 00
No. 1 Cuts 1¼ to 2 in.	60 00	64 00
No. 2 Cuts, 1 in.		40 00
No. 2 Cuts, 1¼ to 2 in.	48 00	50 00
Barn Boards, No. 1, 1 x 12	48 00	50 00
No. 1, 1 x 10	37 00	38 00
No. 1, 1 x 8		37 00
No. 2, 1 x 12	38 00	40 00
No. 2, 1 x 10	34 00	35 00
No. 2, 1 x 8	33 00	34 00
No. 3, 1 x 12	31 50	32 00
No. 3, 1 x 10	29 00	30 00
No. 3, 1 x 8		29 00
Canadian spruce boards	23 50	25 00
Spruce, 10 in. dimension	25 00	27 00
Spruce 12 in. dimension	26 50	28 00
Spruce, 9 in.	23 50	24 50
Spruce, 8 in. and under dimen.		24 00
10 and 12 in. random lengths, 10 ft. and up		24 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	21 00	22 00
All other random lengths, 7-in. and under, 10 ft. and up	21 00	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	21 00	22 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	22 00	22 50
1⅝-in. spruce laths		4 10
1½-in. spruce laths	3 70	3 80

New Brunswick Cedar Shingles	
Extras	3 40
Clears	2 90
Second clears	2 75
Clear whites	2 40
Extra 1s (Clear whites out)	1 50
Extra 1s (Clear whites in)	1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 40
Red Cedar Eurekas, 18-inch 5 butts to 2-in.	4 25
Red Clear Perfection, 5 butts to 2¾	4 80
Washington 16-in. 5 butts to 2-in. extra red clear	3 20



You Can Add 50' to Your Stack

Are you anxious to burn all your sawdust and shavings? Are you in vital need of more steam? Perhaps you are—but you haven't the draft necessary. If you could only add 50 feet to your stack.

You can get the equivalent of a high stack by installing a

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(REG. CAN. PAT. OFF.)

Mechanical Draft System

Mechanical draft will enable you to burn all sorts of fuels including sawdust, shavings and mill refuse—it will enable you to get up steam in a hurry—it will get you over peak load—it will give you enough steam for every purpose—heating and lighting.

Mechanical draft means

—more power from the same fuel.
—equal power from poorer quality fuel.
—increased power from the same plant or
—ability to burn sawdust, shavings and screenings.

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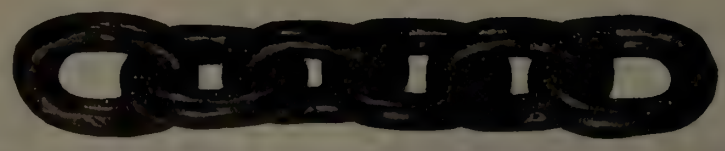
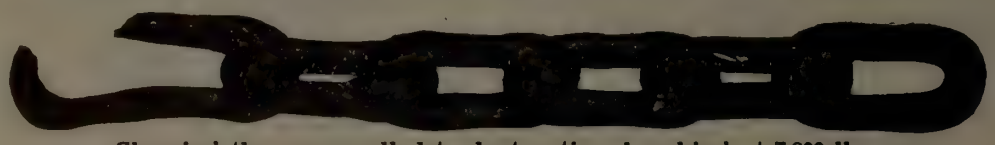


Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

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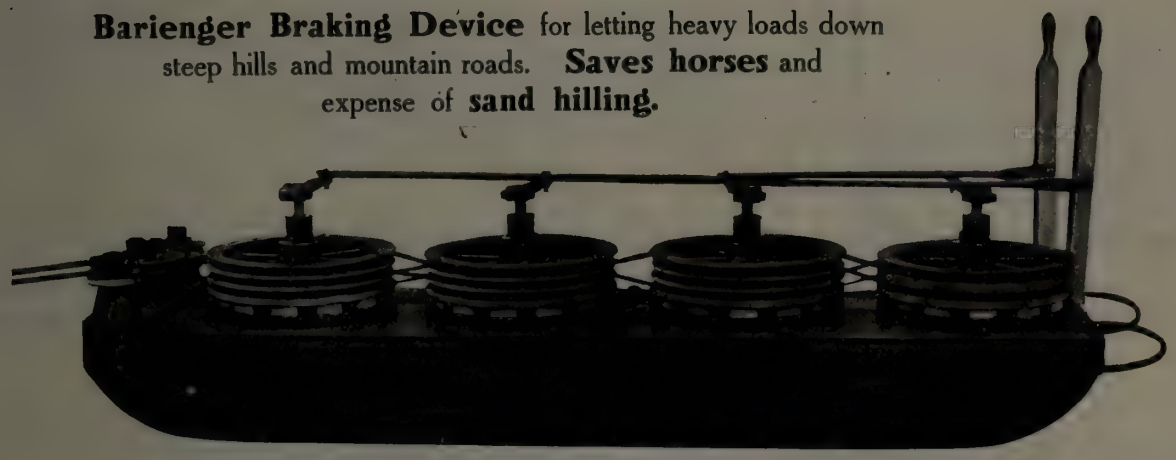
Barienger Braking Device for letting heavy loads down steep hills and mountain roads. **Saves horses** and expense of **sand hilling.**



Now is the time to consider the use of this brake for another season before hauling roads are planned and built. By using this brake lumbermen are able to work much steeper roads, and in consequence, shorter roads and there is a considerable saving in the cost of building roads.

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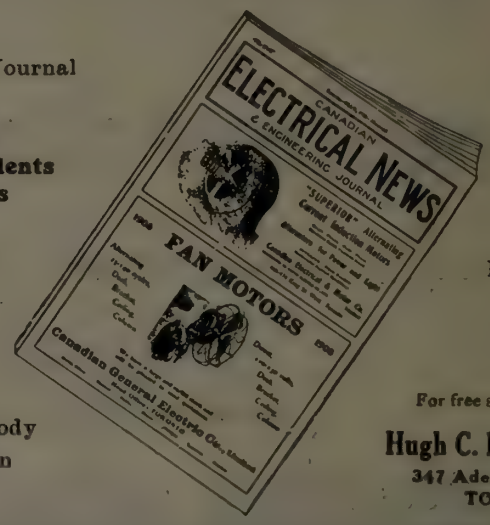

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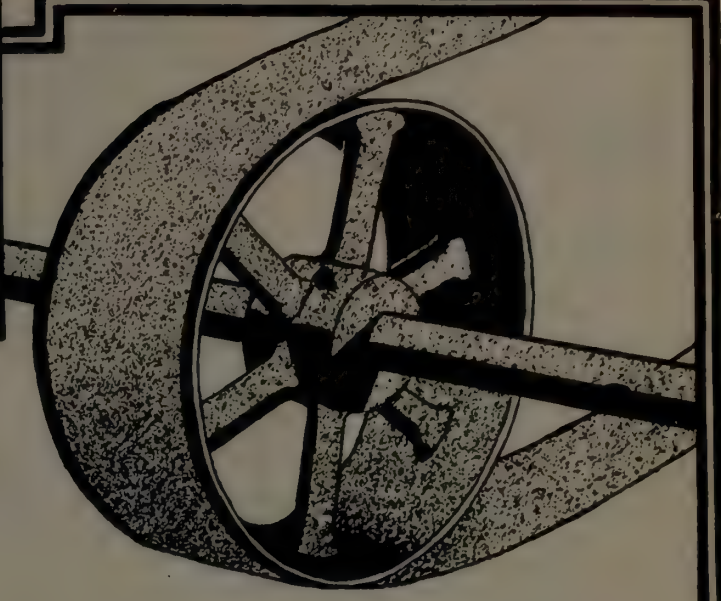

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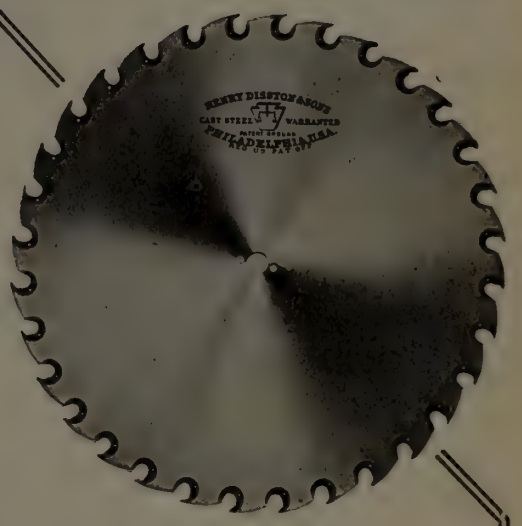

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Bathurst Lumber Company
Canada Wood Specialty Company
Dudley, A. N.
Fassett Lumber Company
Garrett Lumber Company, T. H.
Georgian Bay Lumber Company
Harris Lumber Co., Frank H.
Harris Tie & Timber Company
Laidlaw Lumber Company, R.
McLennan Lumber Company
Montreal Lumber Company
Newman, John P.
New Ontario Colonization Co.
Oliver Lumber Company
Parry Sound Lumber Company
Ritter Lumber Company, W. M.
River Ouelle Pulp & Lumber Co.
Victoria Harbor Lumber Company
Wilson Bros.

LUMBER CRAYONS
Dixon Crucible Company, Jos.
Superior Manufacturing Company

NORTHERN PINE
Anderson Lumber Company, C. G.
Beck Manufacturing Company, C.
Blair & Rolland
Bromley, W. H.
Cameron & Company
Canada Pine Lumber Company
Cleveland-Sarnia Sawmills Company
Donogh & Company, John
Fesserton Timber Company
Fraser-Bryson Lumber Company
Gordon & Company, George
Gillies Bros. Limited
Graves, Bigwood Company
Harris Tie & Timber Company
Hocken Lumber Company
Long Lumber Company
Mackarell & Company, Thos.
Mason, Gordon & Company
Quebec & St. Maurice Industrial Company
Rat Portage Lumber Company
Rideau Lumber Company
Sawmill Owners Sales Company
Snowball Company, J. B.
Spencer, C. A.
St. Gabriel Lumber Company
Watson & Todd, Limited

OATS
Anchor Elevator Company
Chisholm Milling Company
Dwyer & Company, W. H.
Fairweather, A. W.

OVERHEAD RUNWAYS
Morris Crane & Hoist Co., Herbert

PACKING
Can. H. W. Johns-Manville Co., Ltd.
Gutta Percha & Rubber Company

PAINT
Dixon Crucible Co., Joseph

PENCILS
Dixon Crucible Co., Joseph

PLANING MILL EXHAUSTERS
Sturtevant Company, B. F.

POLES
Diver, John M.
Harris Tie & Timber Company
Pink & Company, Thos.

POPLAR
Dawkins Lumber Company, W. H.

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Department of the Interior, Ottawa,
December 20th, 1912.

Deputy Minister.

PULLEYS & SHAFTING
Waterous Engine Works Co.

PUMPS
Canadian Fairbanks-Morse Company
Smart-Turner Machine Company
Waterous Engine Works Co.

RAILS
Gartshore, John J.
Morris Crane & Hoist Co., Herbert
Sessenwein Bros.

REDWOOD LUMBER
Mershon Lumber Co., John D.

ROOFING
Can. H. W. Johns-Manville Co., Ltd.

RUBBER GOODS
Gutta Percha & Rubber Company

SASH
Batts Limited
Benson & Bray Limited
Haeberle Lumber Company
Heaps & Company, E. H.
Rat Portage Lumber Company
Rimouski Industrial Company
Tessier, Alphonse.

SAWS
Atkins & Company, E. C.
Disston & Sons, Henry
Gerlach Company, Peter
Hoe & Company, R.
Mereen Johnston Machine Company
Radcliff Saw Mfg. Company
Shurly-Dietrich Company
Simonds Canada Saw Company

SAW MILL MACHINERY
Berlin Machine Works
Gerlach Company, Peter
Hamilton Company, William
Hill Mfg. Company, W. E.
Huther Bros. Saw Mfg. Company
Long Manufacturing Company, E.
Mereen-Johnson Machinery Co.
Mershon & Company, W. B.
Morris Crane & Hoist Co., Herbert
Parry Sound Lumber Company
Payette & Company, P.
Waterous Engine Company
Waterous Engine Works Co.
Wickes Bros.

SHINGLES
Barclay Shingle Mills
Bartram Brothers
Campbell-MacLaurin Lumber Co.
Can. H. W. Johns-Manville Co., Ltd.
Christy-Moir Company
Dalhousie Lumber Company
Fraser Limited
Gillespie, James
Harris Tie & Timber Company
Heaps & Company, E. H.
Larkin Lumber Company, C. A.
Long Lumber Company
McGibbon Lumber Company
Rat Portage Lumber Company
Snowball Company, J. B.
Timms, Phillips & Company

SHINGLE & LATH MACHINERY
Gerlach Company, Peter
Long Manufacturing Company, E.
Mereen-Johnson Machinery Co.
Payette & Company, P.
Waterous Engine Works Co.

SOUTHERN PINE
Arkansas Soft Pine Association
Cameron & Company
Garrett Lumber Company, T. H.
Harris Lumber Co., Frank H.
Hobart & Company
Wuichet, Louis
Wilson Lumber Company
Mason, Gordon & Company

SPRUCE
Auger & Son
Bartram Bros.
Blair & Rolland
Cameron & Company
Canada Lumber Sales Company
Christy-Moir Company
Donogh & Company, John
Elgie & Jarvis Lumber Company
Fenderson & Company, John
Fraser Limited
Fraser-Bryson Lumber Company
Gillies Bros
Leak & Company
Mackarell & Company, Thos.
Mason, Gordon & Company
New Ontario Colonization Co.
Partington Pulp & Paper Co., Ed.
Quebec & St. Maurice Industrial Co.
Rideau Lumber Company
Snowball Company, J. B.
Spencer, C. A.
St. Gabriel Lumber Company
Waterous Engine Works Co.

STEEL CHAIN
Coghlin & Company, B. J.
McKinnon Chain Company
Standard Chain Company

SULPHITE PULP
Partington Pulp & Paper Company

SNOW PLOWS
Pink Company, Thos.

TAPS and DIES
Pratt & Whitney Company
Waterous Engine Works Co.

TRANSMISSION MACHINERY
Canadian Fairbanks-Morse Company

TIES
Fesserton Lumber Company
Harris Tie & Timber Co.
Spears & Lauder

TIMBER BROKERS
Cant & Kemp
Farnworth & Jardine
Lacey & Company, Jas. D
Meier, F. R.

TIMBER ESTIMATORS
Lauderburn, D. E.
Meier, F. R.
Munson-Whitaker Company
Sewall, James W.

TIMBER CRUISERS
Campbell Lumber Company, L. E.

TUGS
West & Peachey

VENEERS
Dominion Mahogany & Veneer Co.
Hoffman Brothers Company
Webster & Bro., Jas.

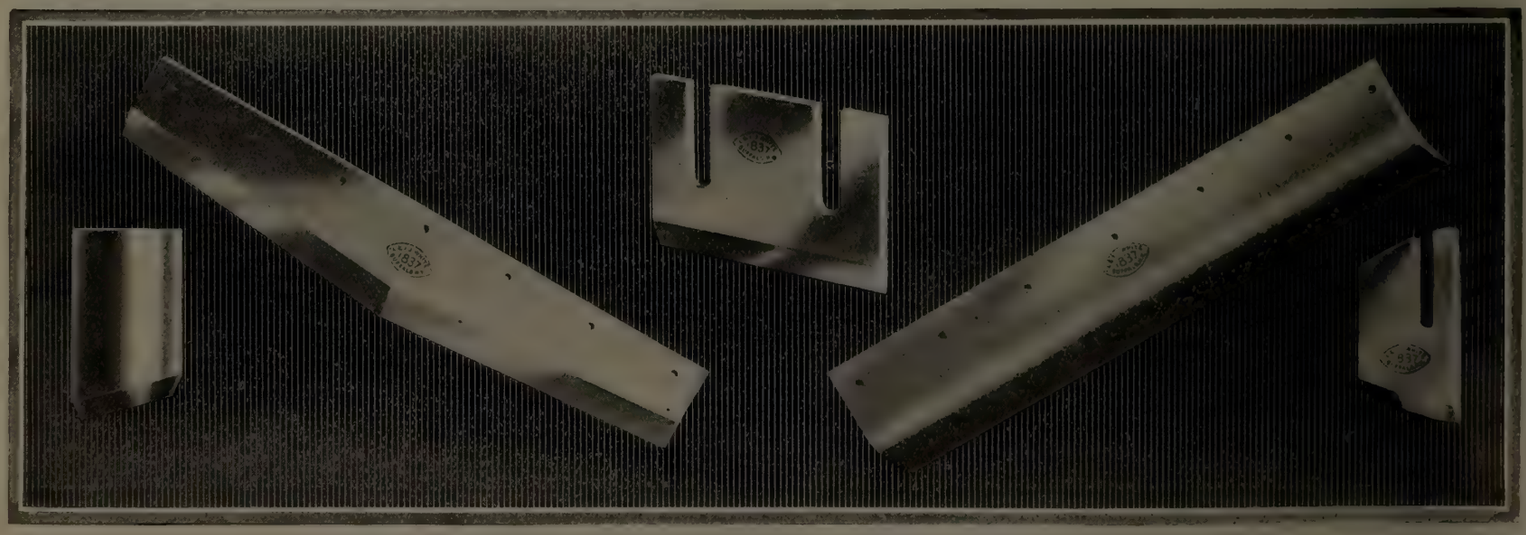
VENEER MACHINERY
Coe Mfg. Company
Perrin, William R.
Philadelphia Textile Machinery Co.

WIRE
Greening Wire Company, B.
Laidlaw-Bale-Tie Company
Steel Company of Canada

WOODWORKING MACHINERY
American Woodworking Mach. Co.
Berlin Machine Works
Canadian Fairbanks-Morse Company
Hamilton Company, William
Long Manufacturing Company, E.
Mereen-Johnson Machinery Co.
Waterous Engine Works

WOOD PULP
New Ontario Colonization Co.
River Ouelle Pulp & Lumber Co
St. Gabriel Lumber Company

May we wish you all a Merry Christmas and Happy New Year.



Machine Knives

You can buy knives cheaper than **White's**—but do you want to? In other words, do you want cheaper quality knives? **White's** are the higher grade and we are proving every day they will wear 10 to 50 per cent longer. All we ask is a trial order—just to show you. We ***can*** show you. Price may not be only very little higher either.

Start Saving Money Today.

The L. & I. J. White Co., 20 Columbia St., Buffalo, N. Y.

Agents: Radcliff Saw Co., Toronto

Veneer Machinery

The Best in 1850
The Best in 1914

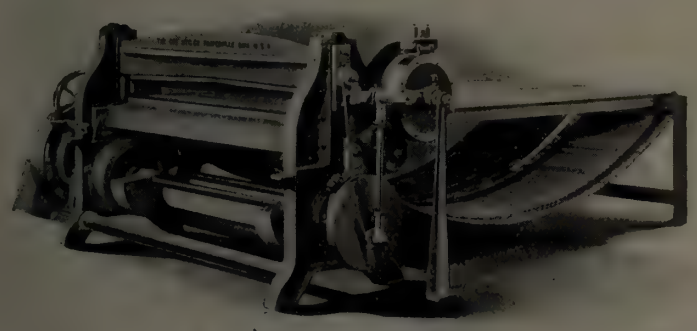
Slicer

Lathe

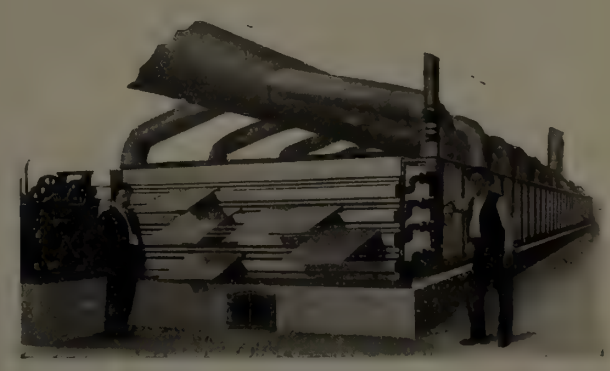
In this age of specialization only those firms of keen observation and untiring effort can hope to win success in any one line. Our entire efforts for 64 years have been spent upon making Coe Veneer Machiney the best possible equipment for cutting, slicing, clipping, wringing, sawing, drying, stamping or producing veneer from any kind of lumber.

With the rapidly increasing demand for lumber and the rapidly dwindling supply, the use of veneer products must greatly increase.

If you are in the market for veneer equipment we will be pleased to hear from you. The many and varied Coe plants now in successful operation are proof that we can design and equip a plant to suit your conditions. **Write us for Catalogue.**



Clipper



Dryer

The Coe Manufacturing Company

Painesville, Ohio, U. S. A.

Established 1850

The oldest and largest manufacturers of complete veneer mill equipment in the world.

The Connecting Link

Way back in 1880 the **Wanted and For Sale** columns of the Canada Lumberman and Woodworker were used extensively by the lumbermen of Canada for the purchase and sale of timber, lumber and machinery.

Time has but served to enhance the value of this medium, until to-day the **Wanted and For Sale Department** of the Canada Lumberman has become a national market.

Twice a month "the paper with the green cover" brings together buyers and sellers of lumber and machinery from all the principal lumbering centres of Canada and the United States. By covering this wide field, the percentage of waste circulation for advertisers has been reduced to a minimum.

For quick and satisfactory results, get your advertisement in the **Wanted and For Sale Department** of the

Canada Lumberman & Wood Worker

Published 1st and 15th of the Month

The National Lumber Journal of Canada

TORONTO - - - CANADA

Branch Offices:

Montreal Winnipeg Vancouver London, Eng.

United States Representatives:
W. D. Ward, 628 Tribune Building, NEW YORK.
E. J. Macintyre, 1155 Peoples Gas Building, CHICAGO.

Planing Mill Improvements

Every Manufacturer in the Lumber Industry realizes that to be "up-to-date" their Factory should be installed with **Shaving Exhaust Fans.**

The Sheldon Shaving Exhaust Fan
is especially designed to suit your particular requirements, giving greater efficiency and independence than any other on the market.

See our New Catalogue

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

AGENTS:
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Messrs. Gorman, Clancey & Grindley, Ltd., Calgary and Edmonton, Alta.
Messrs. Robt. Hamilton & Co. Ltd., Bank of Ottawa Bldg., Vancouver, B.C.

Morgan Machine Company

ROCHESTER, N. Y.

Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

Box Board Matchers,

Box Board Printing Machines.

Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the **Morgan Machine Company** for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N.Y.

BATTS DOORS

Are Reliable Doors

B. L. No. 317, Chestnut

B. L. No. 336, ¼-Cut Oak.

B. L. No. 319, ¼-Cut Oak.

B. L. No. 316, Chestnut

B. L. No. 334, ¼-Cut Oak.

BATTS LIMITED

377-9 Pacific Avenue

TORONTO, ONT.

Manufacturers of

Staved Columns, Veneered Doors, Newel Posts, Cypress Greenhouse Material, Pine Doors and Frames, Sash, Flooring, Trim, Turned Newels and Balusters.

There are many other designs—all equally Attractive—shown in our up-to-date Catalog. You should send for a copy; it will help you considerably in the Selection of Your Future Requirements.

The Mark THE E. LONG MANUFACTURING CO. LIMITED SAW MILL MACHINERY ORILLIA, CANADA *of Quality*

Machinery that "Stays Put"

A "LONG" Nigger is designed to do its heavy work without destroying itself, or shaking the mill to pieces.

The sawyer will be equally pleased by its smooth action and its brute force.

The absence of the usual cloud of steam in the winter months is a feature too.

Built in many sizes. Get the catalog—No. 101.

The E. Long Mfg. Co. Limited

Orillia, - Canada

AGENCIES:

Vancouver—
Robt. Hamilton & Co.

Calgary and Edmonton—
Gorman, Clancey & Grindley, Ltd.

Winnipeg—
The Stuart Machinery Co., Ltd.

Montreal—
Williams & Wilson, Ltd.

Let Steam Do the Work When You Shift Your Guides

—It's Done on the Waterous "New Model" Bandmill

The latest improvement added to our Bandmills—

THE WATEROUS STEAM RAISING DEVICE

Your sawyer is only human. If he gets tired at the end of his shift and does not move his guide with a smaller log on the carraige, don't blame him. Give him a steam cylinder to do the work—instantly, and without an effort on his part—and you can be certain that he will keep the guide just where it should be—***close to the timber on the carriage.***

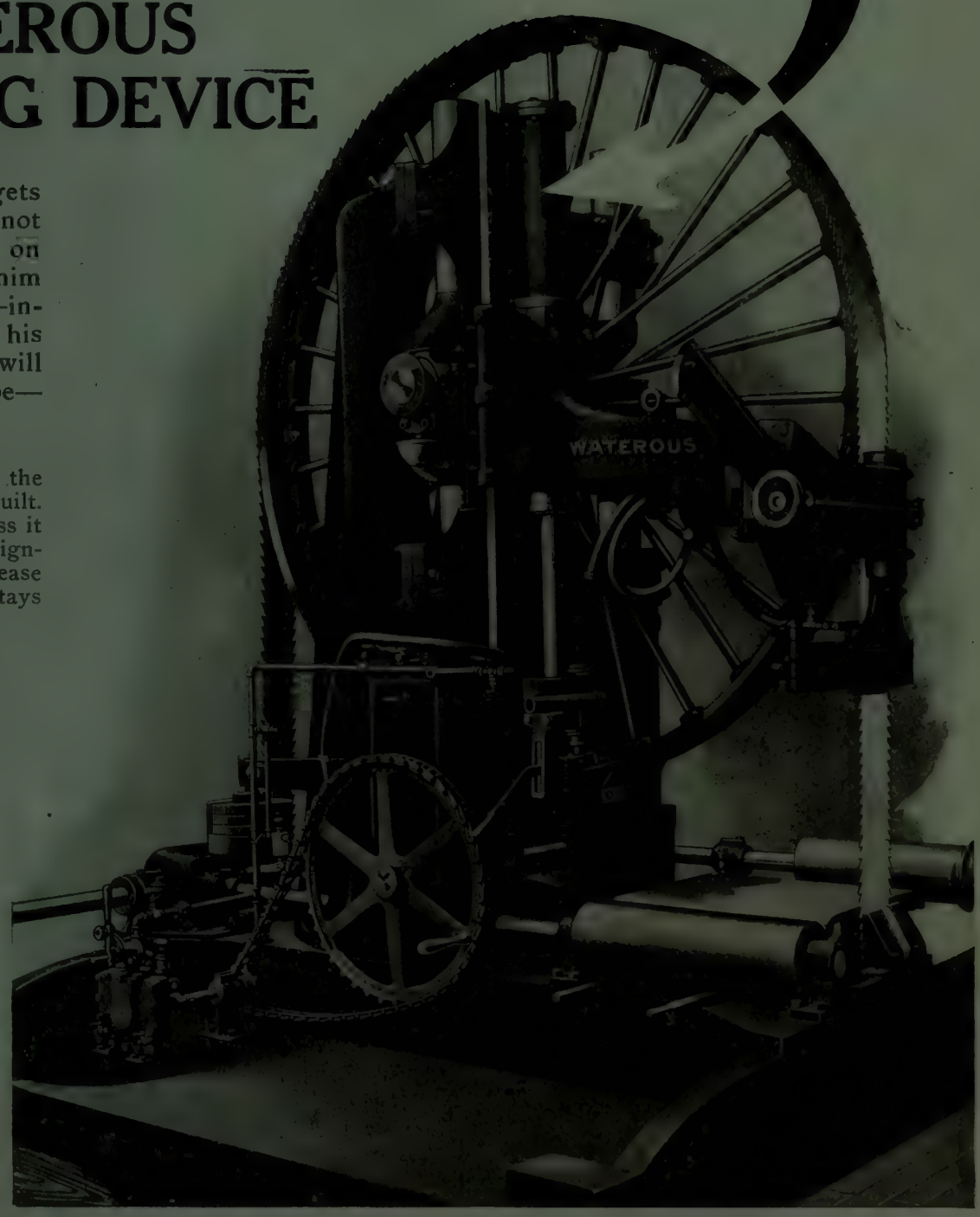
The Waterous Steam Raising Device is the quickest, surest acting guide shifter being built. Pull up the lever and up goes the guide, press it down and the guide drops. The valve is designed to balance both sides of the piston. Release the valve and the guide stops dead—and stays there without a shift.

That's how the **Waterous Steam Raising Device** has simplified guide adjustment on the bandmill. It means more lumber and better lumber for every hour of the day's work.

The Waterous "New Model" Bandmill is supplied with this attachment. Where it is in use, in some of Canada's fastest cutting mills, it has more than made good. **We can attach it to your bandmill no matter what make it is.**

This device is worth more than casual notice, it is fully described in Bulletin No. 1021.

Notice the Rotary Engine that drives the wheel raising device. That's another Waterous feature. The bulletin describes it, too.



The Waterous Engine Works Co., Limited

Vancouver, B.C. **Brantford, Canada** **Winnipeg, Man.**

"FROST KING" METAL

$5,000,000.00
worth of mixed metal sold annually.

Our thirty-five years' experience in metal mixing enables us to place on the market a babbitt that we believe to be absolutely perfect. For high speed machinery and engine work it is without an equal. It is specially designed for saw-mills, planing mills, threshing engines, traction engines, pumps, rolling mills, pulp machinery, and all classes of stationary engines. It is a high grade metal made of the very best selected stock, and carefully compounded.

If your dealer does not stock FROST KING send us a money order for your requirements. Price 30c per lb., Fort William and East; West of Fort William 35c per lb., delivered nearest railway station; packed in 30 lb. and 60 lb. boxes.

For extra duty, such as over-hanging saws, our FAULTLESS BABBITT will stand where all other metals will fail. Price, Fort William and East, 40c per lb.; West of Fort William, 45c, delivered to your nearest railway station; packed in 30 lb. and 60 lb. boxes.

HOYT METAL CO., Toronto, Canada

Have factory and office at Eastern Avenue and Lewis Street, Toronto, Canada

Factories also at:— New York, N. Y. London, Eng. St. Louis, Mo.

President and General Manager D. C. CAMERON, Winnipeg

Secretary-Treasurer, WILSON BELL, Winnipeg

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Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

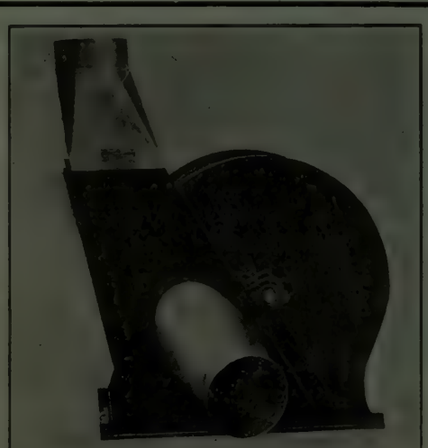
Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

The J. C. McLaren Belting Co.
Limited

General Mill Supplies MONTREAL



Free your factory with a "Foster" Fan.

The Powers are at War!

We are at war with power. Let us overcome the power enemy with the

EFFICIENT "FOSTER" FAN

Exhaust Systems for removing Shavings and Sawdust in Woodworking Plants, Lumber and Sawmills.

Sawmill Men Attention! This is the only blower which has ever handled green shavings and sawdust successfully.

Sawmill men who have installed this blower declare that they would not now be without it. Why speculate when people who know how are at your service. Particulars on request.

TORONTO BLOWER CO., 156 Duke St., Toronto